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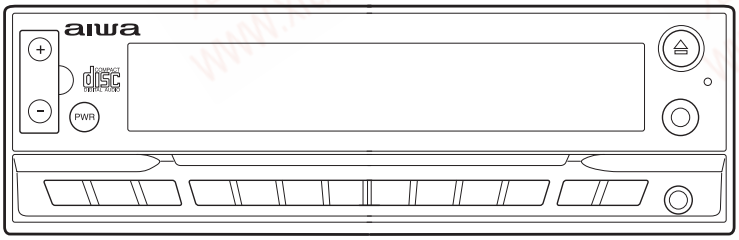
aiwa SERVICE

CDC-X917M YU



SERVICE MANUAL

STEREO CAR CD RECEIVER BASIC CD MECHANISM : CDC02AW2

• This Service Manual is the “Revision Publishing” and replaces “Simple Manual” of CDC-X917M <YU>, (S/M Code No. 09-014-443-4T1).

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S/M Code No. 09-015-443-4R1

REVISION DATA

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SPECIFICATIONS

RADIO SECTION

(FM)

Frequency Range	87.5 MHz – 108 MHz (100 kHz steps)* 87.5 MHz – 108 MHz (50 kHz steps)*
Usable Sensitivity	12.7 dBf
50 dB Quieting Sensitivity	17.2 dBf
IF Rejection	80 dB
Frequency Response	30 Hz – 15,000 Hz
S/N Ratio	63 dB
Stereo Separation	35 dB at 1 kHz
Alternate Channel Selectivity	70 dB
Capture Ratio	3 dB

(AM)

Frequency Range	530 kHz – 1,710 kHz (10 kHz steps)* 531 kHz – 1,602 kHz (9 kHz steps)*
Usable Sensitivity	30 µV (30 dB)

9k ▭ 10k

* **Set the frequency increment for your area using the switch on the bottom of the unit.** (The switch is factory-set to the 10k position [for the U.S.A.])

CD SECTION

Frequency Response	17 Hz – 20 kHz +0/–3 dB
Dynamic Range	More than 80 dB
Channel Separation	More than 65 dB
S/N Ratio	More than 85 dB
Wow/Flutter	Not applicable

AUDIO SECTION

Max. Power Output	50 W x 4 channels

AUX IN input

Input Sensitivity (Load Impedance)	
AUX IN	300 mV (10 kΩ)

GENERAL

Power-Supply Voltage	14.4 V (11 to 16 V allowable), DC, negative ground
Load Impedance	4 Ω
Tone Control	Bass ± 10 dB at 100 Hz Treble ± 10 dB at 10 kHz
Preamp Output Voltage (Load Impedance)	4 V (10 kΩ)
Installed Size	182 (W) x 53 (H) x 155 (D) mm ($7^1/_4$ (W) x $2^1/_8$ (H) x $6^1/_8$ (D) inches)

STEERING WHEEL REMOTE CONTROL

Dimensions	Approx. 67 (W) x 26 (H) x 27 (D) mm ($2^3/_4$ (W) x $1^1/_{16}$ (H) x $1^1/_8$ (D) inches) (excluding holder)
Weight	Approx. 38 g (1.33 oz.) (including holder, battery)

• Design and specifications are subject to change without notice.

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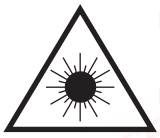
PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.

ATTENTION
L'utillisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL
Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

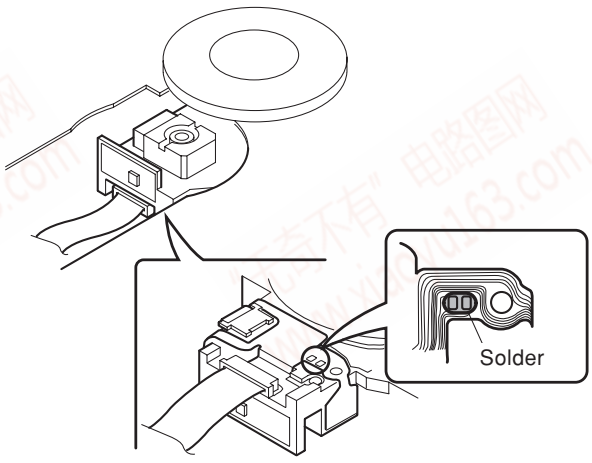
Precaution to replace Optical block

(PICK720)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in right figure.

PICK-UP Assy PWB



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ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	8Z-KT1-622-010		C-IC,LC75374E
	87-A22-023-040		C-IC,BA14741F-E2
	8B-KCF-616-010		IC,TA8273H
	87-A21-532-030		C-IC,LC75817W-8720
	87-A90-951-010		RCR UNIT,SBX1971-52
	88-KT1-606-080		IC,PST994D
	87-A20-712-040		C-IC,BA6417F
	8B-KC7-621-030		C-IC,UPD178018AGC-596
	87-020-784-040		C-IC,TC4053BF
	87-A21-467-040		C-IC,CXA2581N
	87-A21-533-030		C-IC,CXD2587Q
	87-A21-952-030		C-IC,UPD789026GB-A54-8ES
	87-A21-161-040		C-IC,BA6392FP
TRANSISTOR			
	87-A30-287-040		C-TR,DTC114TKA
	87-A30-289-040		C-TR,2SA1037AK(R)
	89-324-122-040		C-TR,2SC2412KR
	87-A30-283-040		C-TR,DTA114YKA
	87-A30-288-040		C-TR,DTC114YKA
	87-A30-290-010		TR,KTA1658(Y)
	86-NFZ-664-040		C-TR,DTC143TKA
	87-A30-291-010		TR,KTC4369(Y)
	89-418-580-080		TR,2SD1858TV2
	89-423-952-010		TR,2SD2395E
	87-A30-248-040		C-TR,2SB1197KQ
	87-A30-011-080		C-TR,DTB113ZK
	87-A30-273-040		C-TR,DTC124EKA
DIODE			
	87-A40-250-040		C-DIODE,DAN217
	87-020-331-040		C-DIODE,DAN202K
	87-A40-817-040		C-ZENER,STZ6.8N
	87-001-783-080		DIODE,1N4002
	87-A40-798-010		DIODE,1N5402
	87-A40-624-080		ZENER,MTZJ10A
	87-A40-509-080		ZENER,MTZJ6.8C
	87-020-330-040		C-DIODE,DAP202K
	87-A40-620-080		ZENER,MTZJ6.2A
	87-070-136-080		ZENER,MTZJ5.1B
MAIN C.B			
ANT101	8Z-KT1-614-010		ANT,AW-002
C101	87-012-274-080		CHIP CAP,U 1000P-50B
C102	87-012-286-080		C-CAP,U 0.01-25
C103	87-012-282-080		C-CAP,U 4700P-50
C104	87-010-498-040		CAP,E 10-16 GAS
C105	87-010-787-080		C-CAP,U 0.022-25
C106	87-010-787-080		C-CAP,U 0.022-25
C107	87-012-274-080		CHIP CAP,U 1000P-50B
C108	87-010-787-080		C-CAP,U 0.022-25
C109	87-010-831-080		C-CAP,U,0.1-16F
C110	87-012-281-080		C-CAP,U 3900P-50 B
C111	87-012-286-080		C-CAP,U 0.01-25
C112	87-010-831-080		C-CAP,U,0.1-16F
C114	87-010-831-080		C-CAP,U,0.1-16F
C115	87-010-831-080		C-CAP,U,0.1-16F
C116	87-010-495-040		CAP,E 2.2-50 GAS
C117	87-012-286-080		C-CAP,U 0.01-25
C118	87-012-278-080		C-CAP,U 2200P-50 B
C123	87-012-286-080		C-CAP,U 0.01-25
C125	87-A11-228-080		C-CAP,U 0.027-25 K B
C126	87-A11-228-080		C-CAP,U 0.027-25 K B
C127	87-012-358-080		C-CAP,S 0.47-10 F Z
C128	87-012-358-080		C-CAP,S 0.47-10 F Z
C301	87-010-497-040		CAP,E 4.7-35 GAS
C302	87-010-497-040		CAP,E 4.7-35 GAS
C303	87-010-494-040		CAP,E 1-50 GAS
C304	87-010-494-040		CAP,E 1-50 GAS
C305	87-012-280-080		C-CAP,U 3300P-50
C306	87-012-280-080		C-CAP,U 3300P-50
C307	87-010-787-080		C-CAP,U 0.022-25
C308	87-010-787-080		C-CAP,U 0.022-25
C309	87-010-494-040		CAP,E 1-50 GAS
C310	87-010-494-040		CAP,E 1-50 GAS
C311	87-A12-308-080		C-CAP,S 0.15-25 K B
C312	87-A12-308-080		C-CAP,S 0.15-25 K B
C313	87-A12-308-080		C-CAP,S 0.15-25 K B
C314	87-A12-308-080		C-CAP,S 0.15-25 K B
C315	87-010-494-040		CAP,E 1-50 GAS
C316	87-010-494-040		CAP,E 1-50 GAS
C317	87-010-831-080		C-CAP,U,0.1-16F
C318	87-010-498-040		CAP,E 10-16 GAS
C321	87-010-555-040		CAP,E 100-10 GAS
C322	87-010-787-080		CAP, U 0.022-25
C323	87-010-498-040		CAP,E 10-16 GAS
C324	87-010-498-040		CAP,E 10-16 GAS
C325	87-010-498-040		CAP,E 10-16 GAS
C326	87-010-498-040		CAP,E 10-16 GAS
C341	87-010-491-040		CAP,E 0.22-50 GAS
C342	87-010-491-040		CAP,E 0.22-50 GAS
C401	87-010-494-040		CAP,E 1-50 GAS
C402	87-A10-369-080		C-CAP,S 0.47-16 K B
C403	87-A10-369-080		C-CAP,S 0.47-16 K B
C405	87-010-759-080		C-CAP,U, 0.1-25F
C406	87-010-759-080		C-CAP,U, 0.1-25F
C407	87-010-494-040		CAP,E 1-50 GAS
C408	87-010-494-040		CAP,E 1-50 GAS
C409	87-010-494-040		CAP,E 1-50 GAS
C410	87-010-494-040		CAP,E 1-50 GAS
C411	87-010-805-080		C-CAP,S 1-16
C412	87-010-805-080		C-CAP,S 1-16
C413	87-010-805-080		C-CAP,S 1-16
C414	87-010-805-080		C-CAP,S 1-16
C415	87-012-195-080		C-CAP,U 100P-50CH
C416	87-012-195-080		C-CAP,U 100P-50CH
C417	87-012-195-080		C-CAP,U 100P-50CH
C418	87-012-195-080		C-CAP,U 100P-50CH
C419	87-A11-062-080		C-CAP,S 2.2-16
C420	87-A11-062-080		C-CAP,S 2.2-16
C421	87-A11-062-080		C-CAP,S 2.2-16
C422	87-A11-062-080		C-CAP,S 2.2-16
C423	87-010-497-040		CAP,E 4.7-35 GAS
C424	87-010-497-040		CAP,E 4.7-35 GAS
C425	87-010-497-040		CAP,E 4.7-35 GAS
C426	87-010-497-040		CAP,E 4.7-35 GAS
C427	87-012-270-080		C-CAP,U 470P-50
C428	87-012-270-080		C-CAP,U 470P-50
C429	87-012-270-080		C-CAP,U 470P-50
C430	87-012-270-080		C-CAP,U 470P-50
C431	87-010-555-040		CAP,E 100-10 GAS
C432	87-010-553-040		CAP,E 47-16 GAS
C451	87-012-358-080		C-CAP,S 0.47-10 F Z
C452	87-012-358-080		C-CAP,S 0.47-10 F Z
C453	87-010-831-080		C-CAP,U 0.1-16 F Z
C454	87-012-286-080		C-CAP,U 0.01-25
C461	87-010-787-080		C-CAP,U 0.022-25
C501	87-012-358-080		C-CAP,S 0.47-10 F Z
C502	87-012-358-080		C-CAP,S 0.47-10 F Z
C503	87-012-358-080		C-CAP,S 0.47-10 F Z
C504	87-012-358-080		C-CAP,S 0.47-10 F Z
C505	87-012-270-080		C-CAP,U 470P-50
C506	87-012-270-080		C-CAP,U 470P-50
C507	87-012-270-080		C-CAP,U 470P-50
C508	87-012-270-080		C-CAP,U 470P-50
C510	87-010-498-040		CAP,E 10-16 GAS

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REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C515	8A-KC7-623-000		CAP,E 2200-16 125 BT
C516	87-012-368-080		C-CAP,S 0.1-50 F
C517	87-012-368-080		C-CAP,S 0.1-50 F
C519	87-010-494-040		CAP,E 1-50 GAS
C522	87-012-368-080		C-CAP,S 0.1-50 F
C701	87-012-278-080		C-CAP,U 2200P-50 B
C704	87-012-368-080		C-CAP,S 0.1-50 F
C705	87-012-278-080		C-CAP,U 2200P-50 B
C706	87-010-553-040		CAP,E 47-16 GAS
C707	87-010-787-080		C-CAP,U 0.022-25
C708	87-010-553-040		CAP,E 47-16 GAS
C709	87-010-759-080		C-CAP,U, 0.1-25F
C713	87-010-759-080		C-CAP,U, 0.1-25F
C714	87-010-787-080		C-CAP,U 0.022-25
C715	87-010-759-080		C-CAP,U, 0.1-25F
C716	87-010-759-080		C-CAP,U, 0.1-25F
C717	87-010-759-080		C-CAP,U, 0.1-25F
C718	87-010-759-080		C-CAP,U, 0.1-25F
C719	87-010-759-080		C-CAP,U, 0.1-25F
C720	87-010-787-080		C-CAP,U 0.022-25
C723	87-010-759-080		C-CAP,U, 0.1-25F
C725	87-010-553-040		CAP,E 47-16 GAS
C751	87-012-368-080		C-CAP,S 0.1-50 F
C752	87-012-368-080		C-CAP,S 0.1-50 F
C753	87-012-368-080		C-CAP,S 0.1-50 F
C754	87-010-553-040		CAP,E 47-16 GAS
C901	87-016-039-090		CAP,DL 0.022F-5.5 Z 70 FM
C902	87-012-358-080		C-CAP,S 0.47-10 F Z
C903	87-010-831-080		C-CAP,U,0.1-16F
C904	87-010-787-080		C-CAP,U 0.022-25
C905	87-012-180-080		C-CAP,U 22P-50 CH
C906	87-012-182-080		C-CAP,U 27P-50 CH
C907	87-010-831-080		C-CAP,U,0.1-16F
C908	87-012-282-080		CHIP CAP,U 4700P-50B
C909	87-012-274-080		CHIP CAP,U 1000P-50B
C910	87-012-195-080		C-CAP,U 100P-50CH
C911	87-012-195-080		C-CAP,U 100P-50CH
C912	87-010-787-080		C-CAP,U 0.022-25
C913	87-010-787-080		C-CAP,U 0.022-25
C914	87-010-831-080		C-CAP,U 0.1-16 Z F
C915	87-012-274-080		C-CAP,U 1000P-50 K B
C916	87-010-787-080		C-CAP,U 0.022-25
CON401	87-A61-219-010		CONN,20P H 52089-2020
CON402	87-A61-584-010		CONN,24P H 52089-2420
CON403	87-A61-583-010		CONN,16P H 52089-1620
CON701	8Z-KT1-611-010		CONN,16P CAM-B51
CON751	87-A60-670-010		CONN,6P H 2MM JMT
⚠ F701	8Z-KC1-621-010		FUSE,15A 32V
FFC401	88-KC4-641-010		FF-CABLE, 20P 1.0 90MM
J401	87-A61-224-110		JACK,PIN 4P XR-401
J402	8A-KC7-620-010		JACK,DIN 13 P SKDS1302
L101	87-003-143-080		COIL 4.7UH K LAL02
L102	8Z-KT1-619-010		COIL,68MH K7-D
L401	87-003-102-080		COIL,10UH J LAL02
L402	87-003-102-080		COIL,10UH J LAL02
L403	87-003-102-080		COIL,10UH J LAL02
L701	8B-KCF-615-010		FLTR,AMORPHOUS -CHOKE
L702	87-003-149-080		COIL,47UH J LAL02
L703	87-003-102-080		COIL,10UH J LAL02
SW903	87-A91-152-010		SW,SL 1-1-2 SSSS212-11-A
TU101	8B-KCF-621-010		TU UNIT, FAE347-A22
X901	87-A70-175-010		VIB,XTAL 4.5MHZ AT-49

DISP C.B

C602	87-010-831-080		C-CAP,U,0.1-16F
C603	87-010-831-080		C-CAP,U,0.1-16F
C604	87-A10-504-080		C-CAP,U 0.047-16 K B
C605	87-012-199-080		C-CAP,U 220P-50
C606	87-A10-504-080		C-CAP,U 0.047-16 K B
C607	87-A10-504-080		C-CAP,U 0.047-16 K B
C608	87-A10-504-080		C-CAP,U 0.047-16 K B
C609	87-A10-504-080		C-CAP,U 0.047-16 K B
C610	87-010-805-080		C-CAP,S 1-16
C611	87-010-831-080		C-CAP,U,0.1-16F
C612	87-010-831-080		C-CAP,U,0.1-16F
C613	87-012-286-080		C-CAP,U 0.01-25
C615	87-A10-504-080		C-CAP,U 0.047-16 K B
CON601	87-A61-585-080		C-CONN,24P H 54548-2490
LCD701	8B-KC7-626-010		LCD,BKC-1/7
LED601	87-A91-355-040		C-LED,BR1112H-TR-RED
LED602	87-A91-355-040		C-LED,BR1112H-TR-RED
LED603	87-A91-355-040		C-LED,BR1112H-TR-RED
LED604	87-A91-355-040		C-LED,BR1112H-TR-RED
SW601	87-A90-001-080		C-SW,TACT SKQMAL
SW602	87-A90-001-080		C-SW,TACT SKQMAL
SW603	87-A90-001-080		C-SW,TACT SKQMAL
SW604	87-A90-001-080		C-SW,TACT SKQMAL
SW605	87-A90-001-080		C-SW,TACT SKQMAL
SW620	87-A90-001-080		C-SW,TACT SKQMAL

KEY C.B

C621	87-010-831-080		C-CAP,U,0.1-16F
CON603	87-A61-586-080		C-CONN,16P V FLZT-SM1
L601	87-005-906-080		C-COIL,S 10UH K LK2125
L602	87-005-906-080		C-COIL,S 10UH K LK2125
L603	87-005-906-080		C-COIL,S 10UH K LK2125
LED611	87-A91-355-040		C-LED,BR1112H-TR-RED
LED612	87-A91-355-040		C-LED,BR1112H-TR-RED
LED613	87-A91-355-040		C-LED,BR1112H-TR-RED
LED614	87-A91-355-040		C-LED,BR1112H-TR-RED
LED615	87-A91-355-040		C-LED,BR1112H-TR-RED
LED616	87-A91-355-040		C-LED,BR1112H-TR-RED
LED617	87-A91-355-040		C-LED,BR1112H-TR-RED
LED618	87-A41-096-010		LED,S1L31-3B0A2 BLU
LED619	87-A40-813-240		C-LED,SEC1E01C BLU
LED620	87-A40-813-240		C-LED,SEC1E01C BLU
LED621	87-A40-813-240		C-LED,SEC1E01C BLU
LED622	87-A40-813-240		C-LED,SEC1E01C BLU
LED625	87-A91-355-040		C-LED,BR1112H-TR-RED
LED626	87-A91-355-040		C-LED,BR1112H-TR-RED
SW606	87-036-220-080		C-SW,TACT SKQDAA
SW607	87-036-220-080		C-SW,TACT SKQDAA
SW608	87-036-220-080		C-SW,TACT SKQDAA
SW609	87-036-220-080		C-SW,TACT SKQDAA
SW610	87-036-220-080		C-SW,TACT SKQDAA
SW611	87-036-220-080		C-SW,TACT SKQDAA
SW612	87-036-220-080		C-SW,TACT SKQDAA
SW613	87-036-220-080		C-SW,TACT SKQDAA
SW614	87-036-220-080		C-SW,TACT SKQDAA
SW615	87-036-220-080		C-SW,TACT SKQDAA
SW616	87-036-220-080		C-SW,TACT SKQDAA
SW617	87-036-220-080		C-SW,TACT SKQDAA
SW618	87-036-220-080		C-SW,TACT SKQDAA

SENS C.B

CNA751	8B-KC7-617-010		CONN ASSY,6P EMP
FFC671	8B-KC7-618-010		F-CABLE,2P MOT
PS671	87-A92-061-080		C-SNSR,GP1S092 HCPI
SW671	87-A92-039-080		C-SW,PUSH ESE22MH24XQ

AUX C.B

FFC601	8B-KC1-602-010		F-CABLE,4P (AUX-W/S)
J601	87-A60-925-010		JACK,3.6 BLK ST W/SW

LED L C.B

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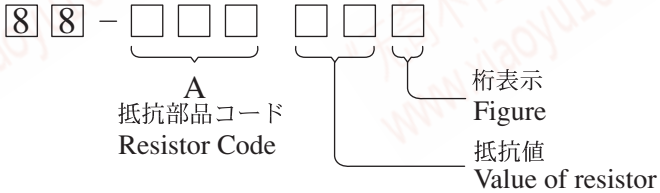
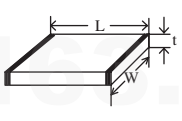
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
LED605	87-A41-085-010		LED,NSPW315BS WHT
LED R C.B			
LED606	87-A41-085-010		LED,NSPW315BS WHT
LED C.B			
FFC651	8B-KC1-603-010		F-CABLE,2P (PWB LED)
LED651	87-A40-228-040		LED,SLR-342MG T31 GREEN
FLEX KEY C.B			
	8B-KC7-612-010		PWB,FLEX KEY
FLEX DISP C.B			
	8B-KC7-611-010		PWB,FLEX DISP
CD C.B			
C803	87-A10-711-080		C-CAP,E 100-6.3 M MF
C804	87-012-274-080		CHIP CAP,U 1000P-50B
C805	87-A12-319-080		C-CAP,U 0.1-25 K B
C806	87-012-280-080		CAP, U 3300P-50
C808	87-A12-319-080		C-CAP,U 0.1-25 K B
C809	87-010-880-080		C-CAP,E 47-6.3 MF
C811	87-012-274-080		CHIP CAP,U 1000P-50B
C812	87-012-165-080		C-CAP,U 3P-50 C CH
C814	87-012-274-080		CHIP CAP,U 1000P-50B
C816	87-010-880-080		C-CAP,E 47-6.3 MF
C817	87-010-885-080		C-CAP,E 22-10 MF
C831	87-012-199-080		CAP 220P
C832	87-A10-504-080		C-CAP,U 0.047-16 K B
C833	87-012-268-080		C-CAP,U 330P-50 B
C834	87-012-198-080		CAP 180P
C835	87-A12-319-080		C-CAP,U 0.1-25 K B
C836	87-012-199-080		CAP 220P
C837	87-012-281-080		C-CAP,U 3900P-50 B
C838	87-A10-504-080		C-CAP,U 0.047-16 K B
C839	87-A10-711-080		C-CAP,E 100-6.3 M MF
C840	87-A12-319-080		C-CAP,U 0.1-25 K B
C841	87-012-286-080		CAP, U 0.01-25
C842	87-016-526-080		C-CAP,S 0.47-16 BK
C843	87-012-198-080		CAP 180P
C844	87-012-198-080		CAP 180P
C845	87-012-273-080		C-CAP,U 820P-50 B
C846	87-012-273-080		C-CAP,U 820P-50 B
C847	87-010-885-080		C-CAP,E 22-10 MF
C848	87-010-885-080		C-CAP,E 22-10 MF
C861	87-A12-319-080		C-CAP,U 0.1-25 K B
C862	87-A12-319-080		C-CAP,U 0.1-25 K B
C863	87-010-880-080		C-CAP,E 47-6.3 MF
C864	87-A12-319-080		C-CAP,U 0.1-25 K B
C881	87-A10-473-080		C-CAP,E 47-10 MF10FC(M)
C882	87-A12-319-080		C-CAP,U 0.1-25 K B
C884	87-012-274-080		CHIP CAP,U 1000P-50B
C885	87-A10-473-080		C-CAP,E 47-10 MF10FC(M)
C886	87-A12-319-080		C-CAP,U 0.1-25 K B
C887	87-A12-319-080		C-CAP,U 0.1-25 K B
C888	87-A12-319-080		C-CAP,U 0.1-25 K B
C889	87-A10-473-080		C-CAP,E 47-10 MF10FC(M)
C891	87-012-199-080		C-CAP,U 220P-50CH
C892	87-012-199-080		C-CAP,U 220P-50CH
C893	87-012-199-080		C-CAP,U 220P-50CH
C894	87-012-199-080		C-CAP,U 220P-50CH
C895	87-012-199-080		C-CAP,U 220P-50CH
C896	87-012-199-080		C-CAP,U 220P-50CH
C897	87-012-199-080		C-CAP,U 220P-50CH
C898	87-012-274-080		CHIP CAP,U 1000P-50B
C899	87-A10-711-080		C-CAP,E 100-6.3 M MF
CN801	87-A61-529-080		C-CONN,15P H FLZ-SM1-TB
CN891	87-A61-220-080		C-CONN,20P H 52271-2090
L801	87-A50-536-080		C-COIL,10UH K LQH3C24
L802	87-A50-536-080		C-COIL,10UH K LQH3C24
L831	87-A50-536-080		C-COIL,10UH K LQH3C24
L832	87-A50-536-080		C-COIL,10UH K LQH3C24
L833	87-A50-536-080		C-COIL,10UH K LQH3C24
L861	87-A50-536-080		C-COIL,10UH K LQH3C24
L881	87-A50-536-080		C-COIL,10UH K LQH3C24
S861	87-A91-627-080		SW,PUSH MPU10372MLBO
X831	87-A70-261-080		C-VIB,CER 16.93MHZ CSTCW-MX03T
X861	87-A70-333-080		C-VIB,CER 5.0MHZ CSTCR5M00G53
SENSOR C.B			
SW1	87-A91-627-080		SWITCH
SW2	87-A91-627-080		SWITCH

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

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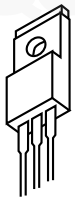
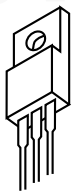
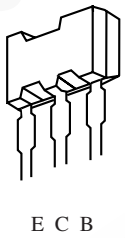
TRANSISTOR ILLUSTRATION



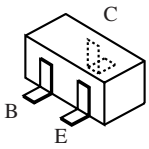
KTA1658(Y)
KTC4369(Y)



2SD2395E



2SD1858TV2



2SA1037AK(R)
2SB1197KQ
2SC2412KR
DTA114YKA
DTB113ZK

DTC114TKA
DTC114YKA
DTC124EKA
DTC143TKA

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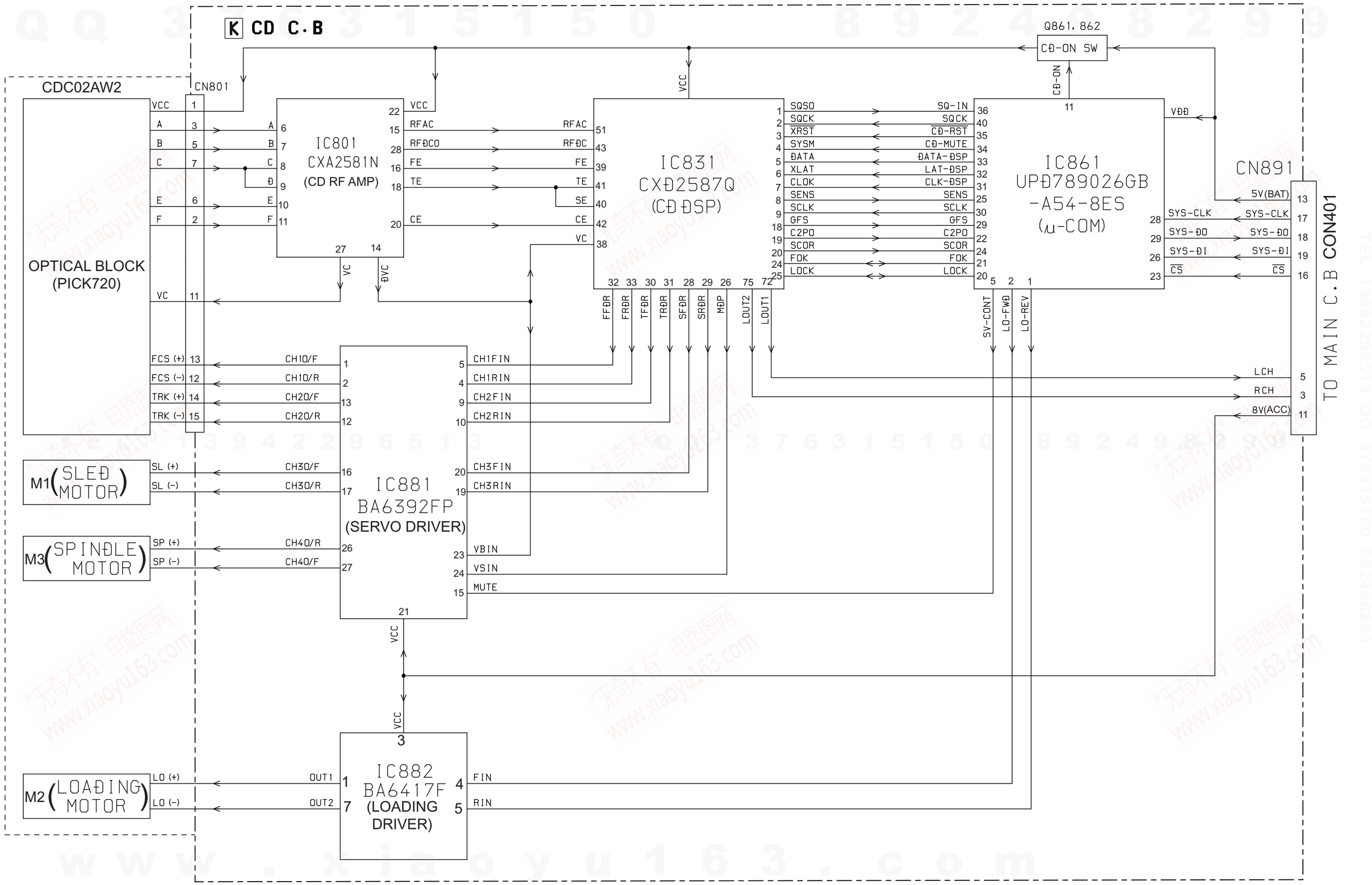
BLOCK DIAGRAM (CD)



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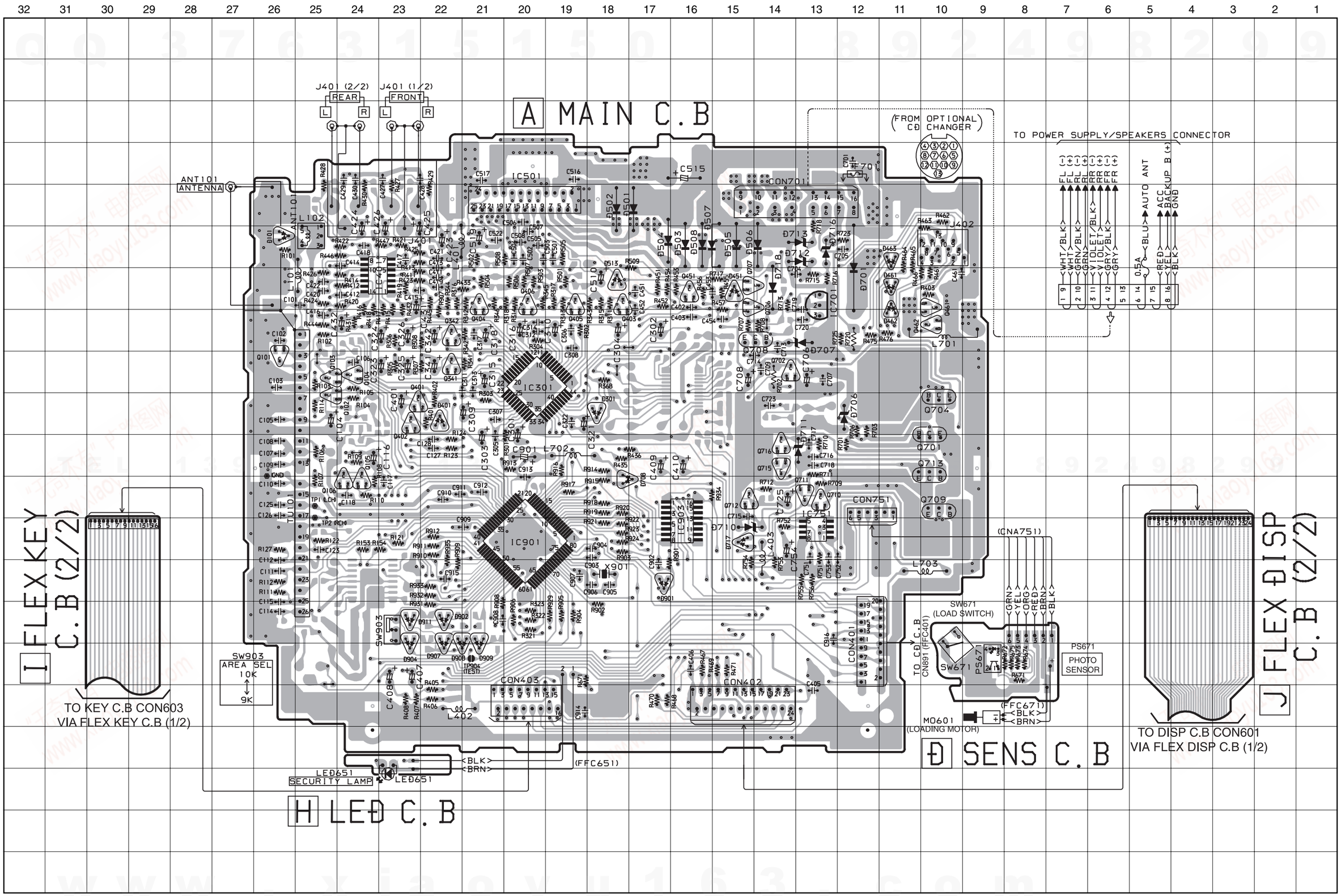
WIRING – 1 (MAIN / LED / SENS / FLEX KEY : 2 / 2 / FLEX DISP 2 / 2) <1 / 2>



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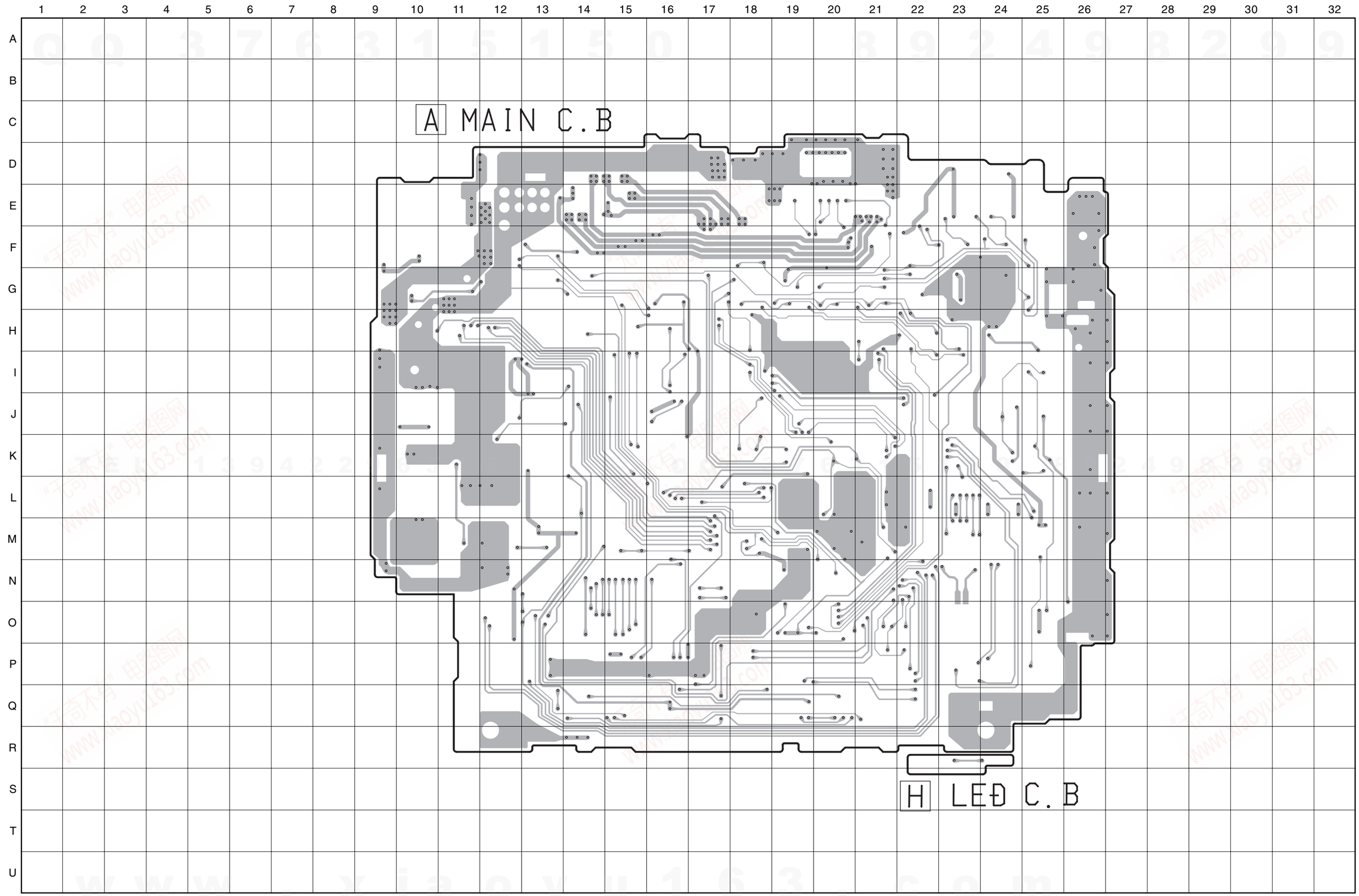
WIRING – 1 (MAIN / LED) <2 / 2>



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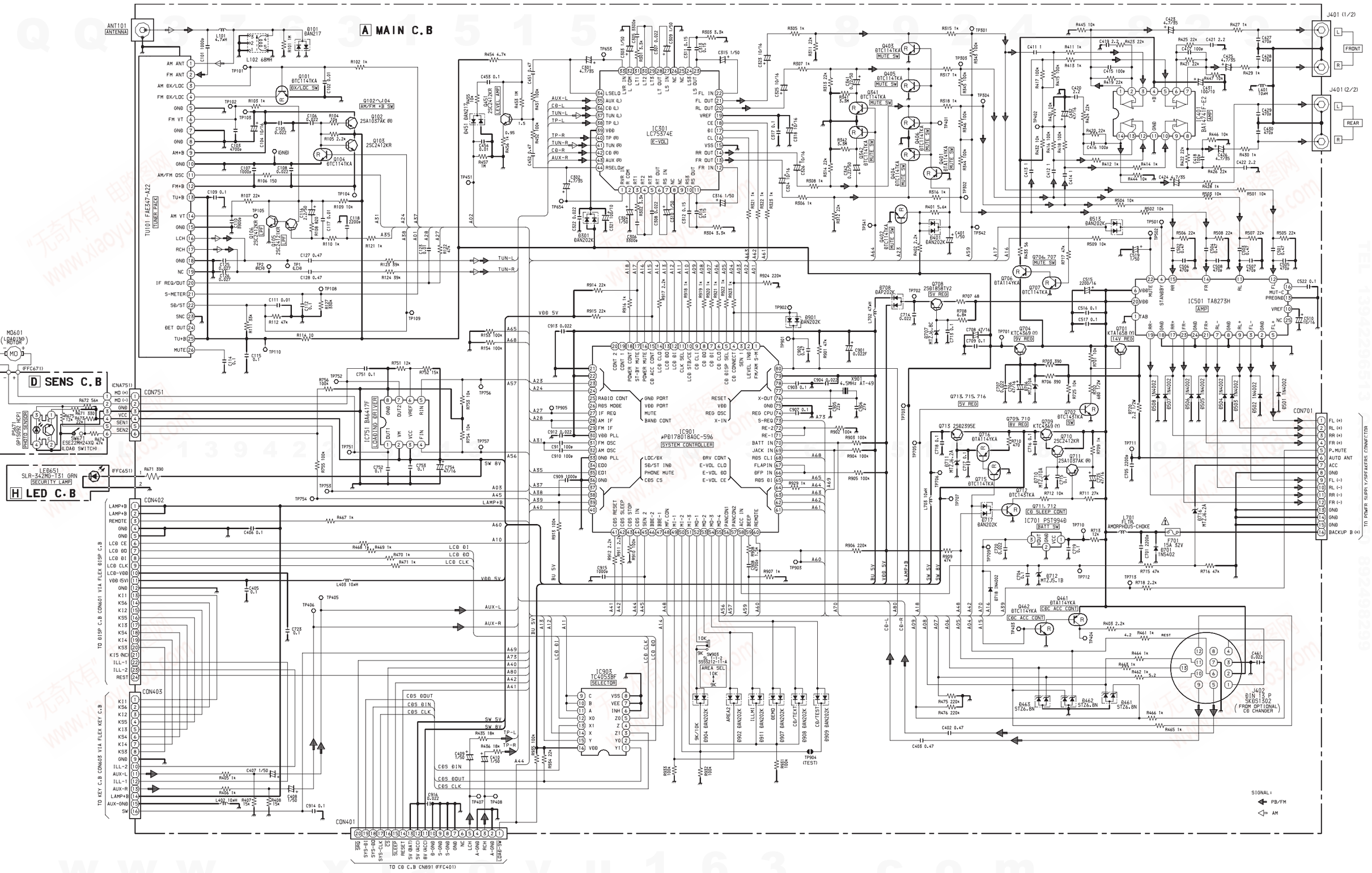
SCHEMATIC DIAGRAM – 1 (MAIN / SENS / LED)



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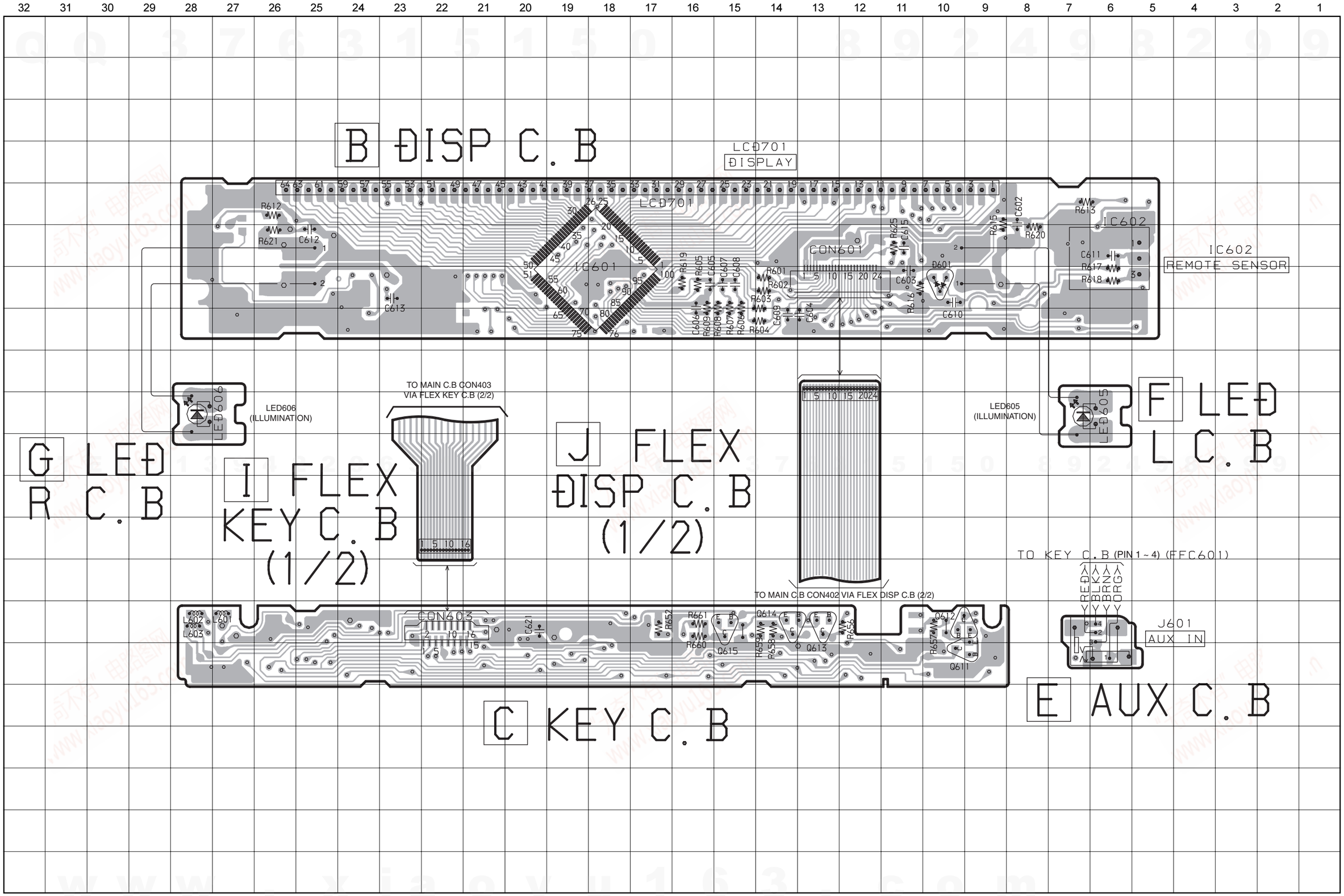
WIRING – 2 (DISP / KEY / AUX / LED L / LED R / FLEX KEY : 1 / 2 / FLEX DISP : 1 / 2) <1 / 2>



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WIRING – 2 (DISP / KEY / AUX) <2 / 2>

B DISP C.B

SW601
SW601
LED601, 602
ILLUMINATION
LED601
LED602
SW602
SW603
SW602
SW603
PWR/MUTE
SW604
SW604
LED603
SW620
RESET
LED604
LED603, 604
ILLUMINATION
SW605
SW605
FUNCTION

E AUX C.B

LED618
ILLUMINATION
R654
LED618
LED613
LED612
LED626
LED619
LED615
LED614
LED620
LED617
LED621
LED616
LED622
LED611
LED625
R653
R651
SW606
SW607
SW608
SW609
SW610
SW611
SW612
SW613
SW614
SW615
SW616
SW617
SW618
LED614, LED620, LED617, LED621, LED616, LED622, LED611, LED625,
SW611 SW612 SW613 SW614 SW615 SW616 SW617 SW618
DISC∨/1
DISC∧/2
INT/3
REP/4
REP1/5
RNDM/6
PS/A.ME
LO
PRESET 1-6
LED613, LED612, LED626, LED615, LED619,
SW606 SW607 SW608 SW609 SW610
SEL
DISP
INFO
TUNE▼/⏮
TUNE▲/⏭

C KEY C.B

BLK
BRN
RED
ORG
TO AUX C.B (PIN 1 ~ 4)
(FEC601)

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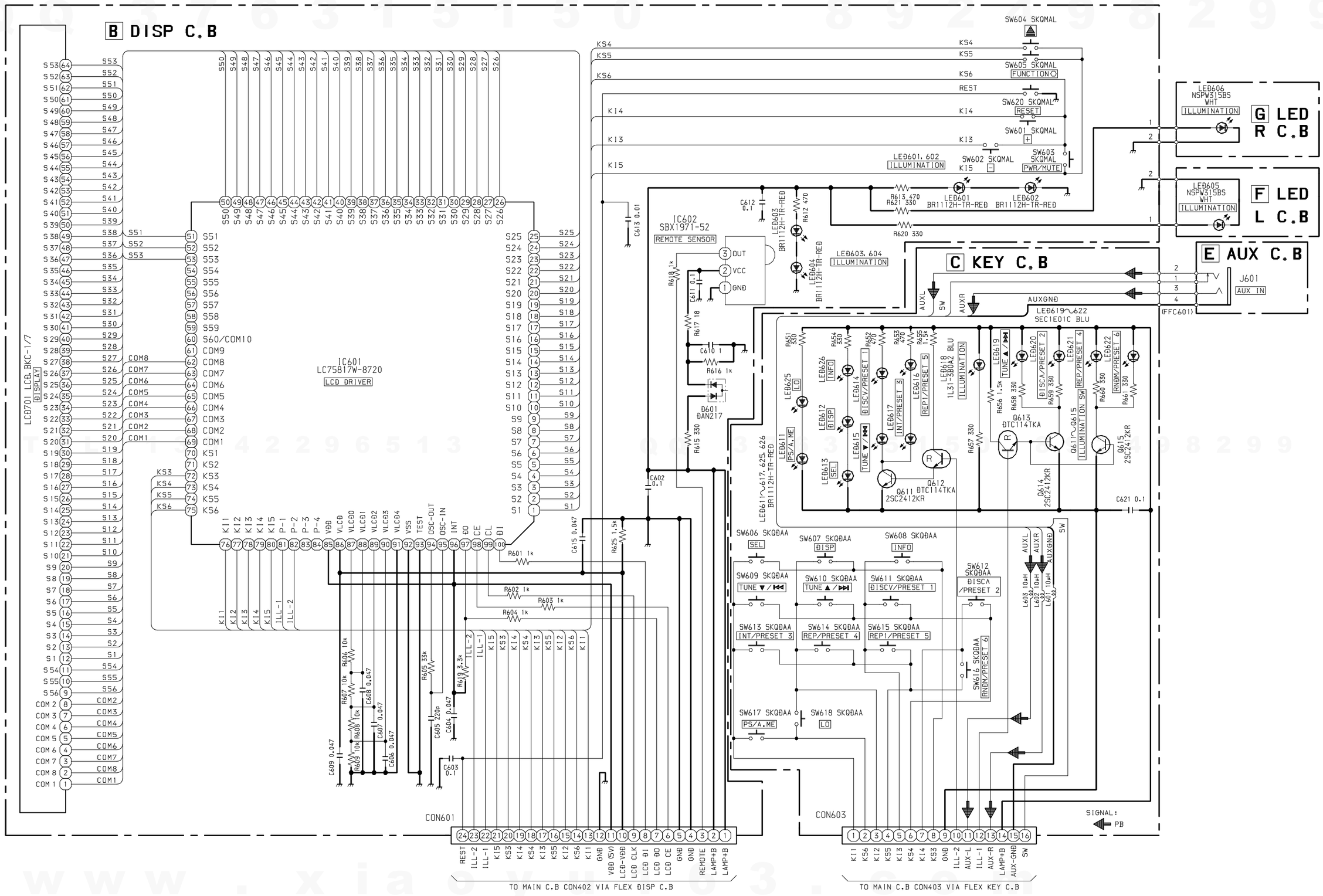
SCHEMATIC DIAGRAM – 2 (DISP / KEY / AUX / LED L / LED R)



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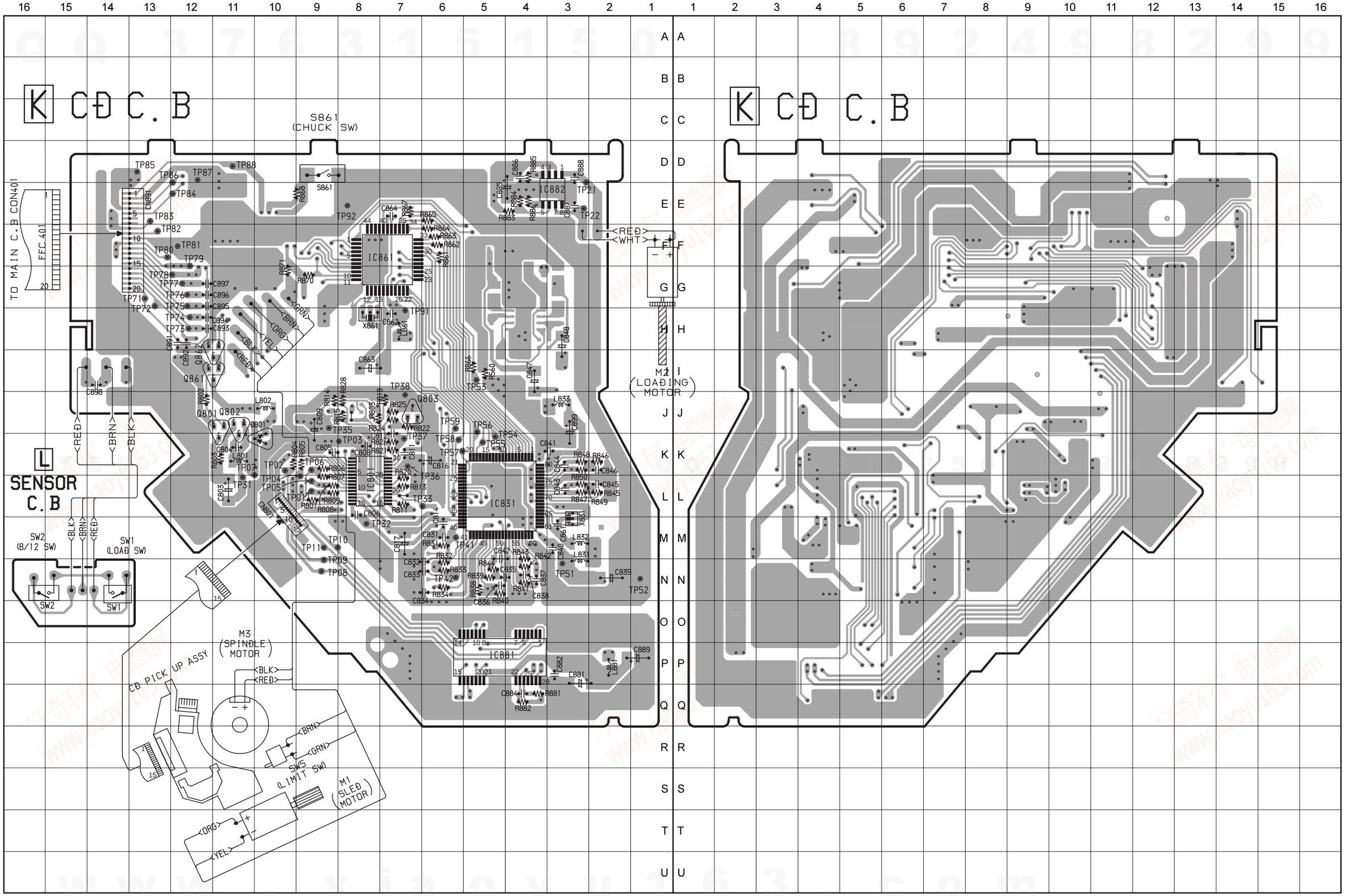
WIRING – 3 (CD / SENSOR)



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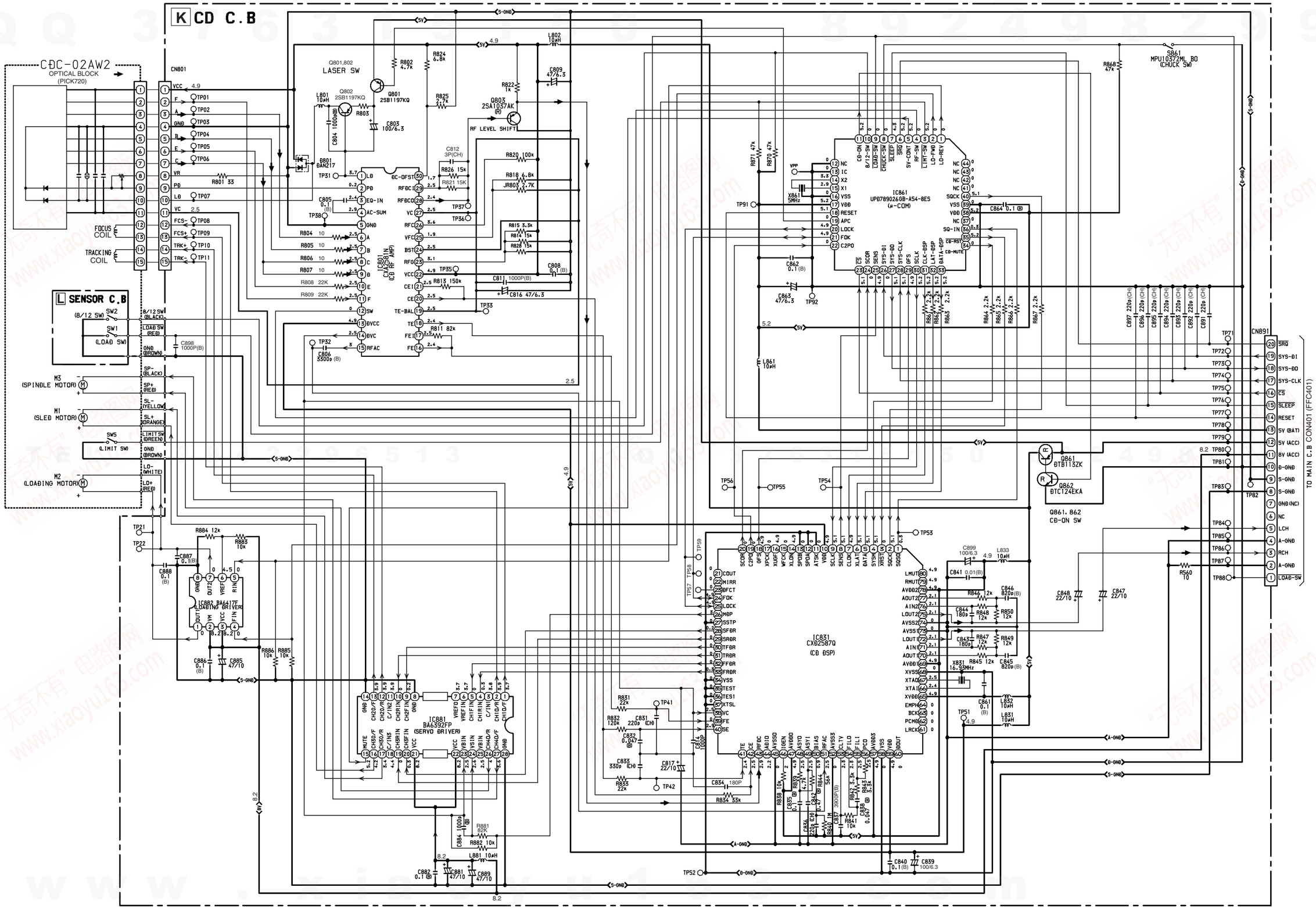
SCHEMATIC DIAGRAM – 3 (CD / SENSOR)



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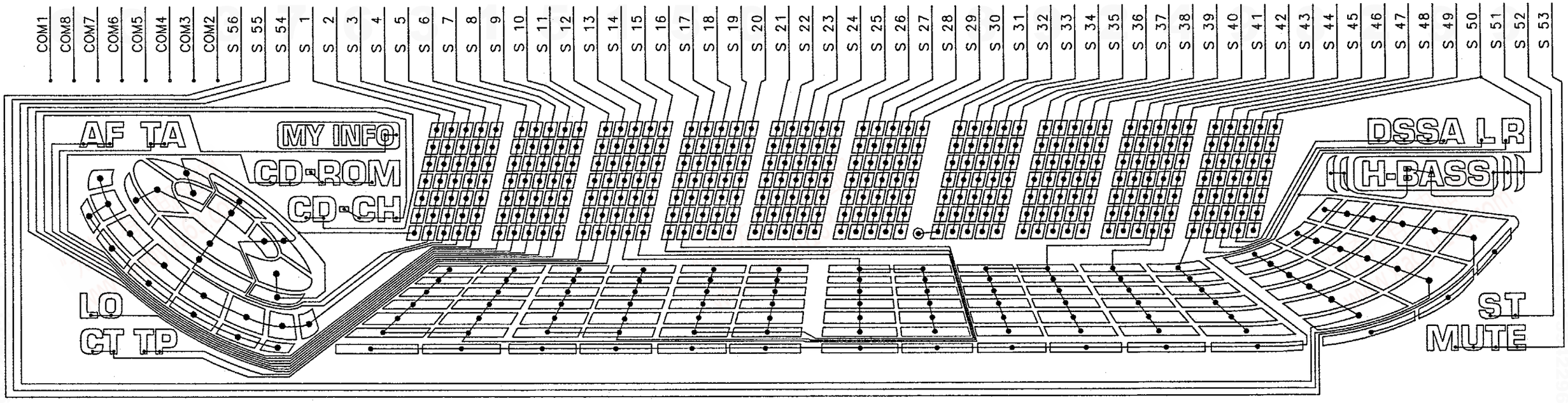
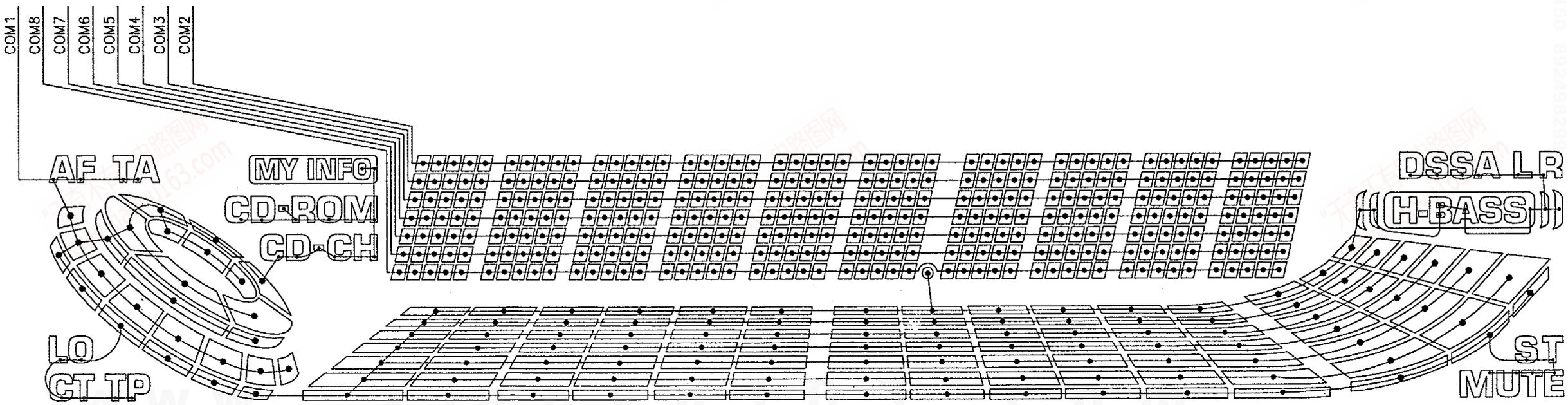
LCD DISPLAY (LCD, BKC–1/7)

SEGMENT WIRING



COMMON WIRING



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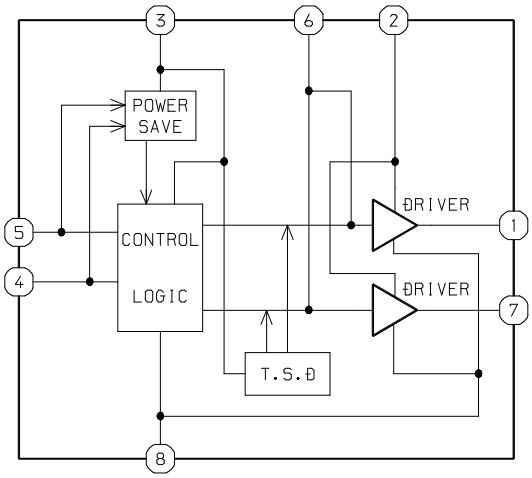
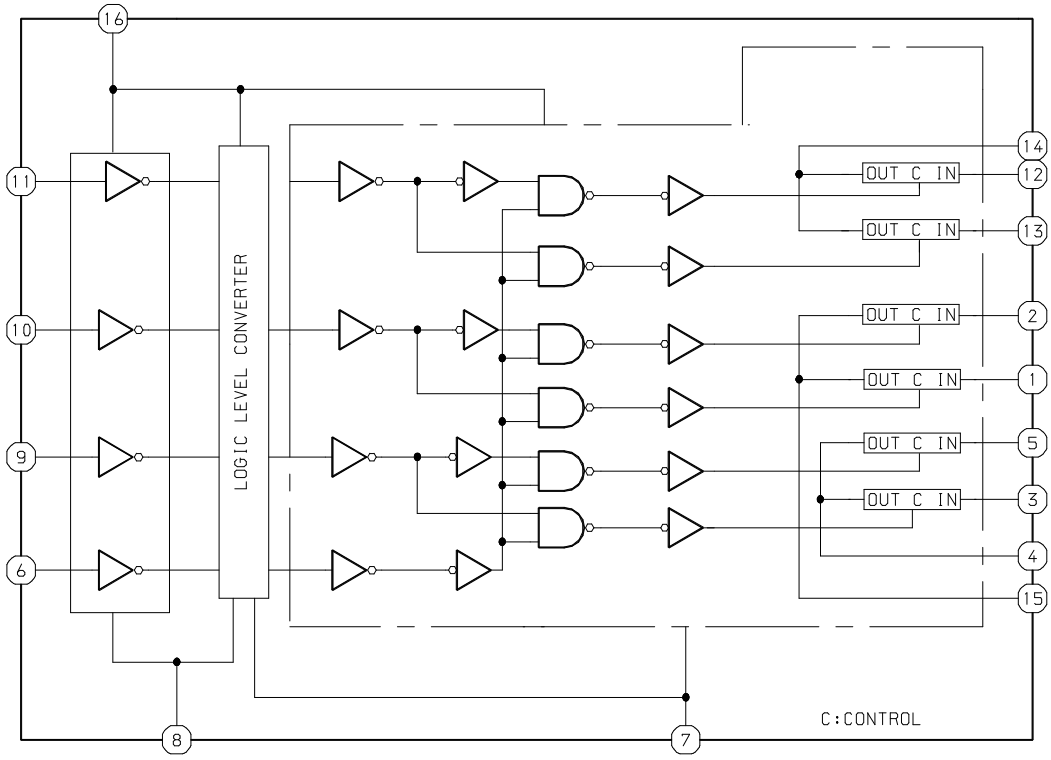
IC BLOCK DIAGRAM

IC, BA6417F



IC, TC4053BF



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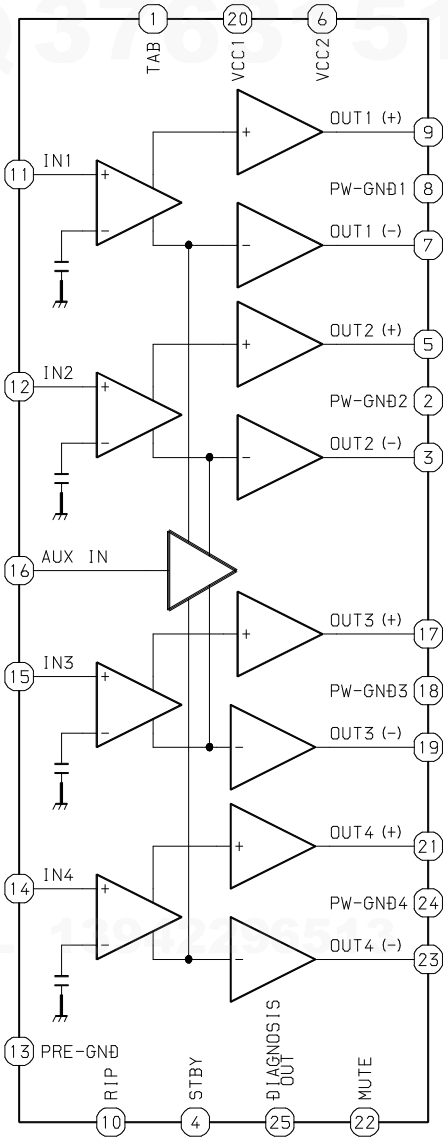
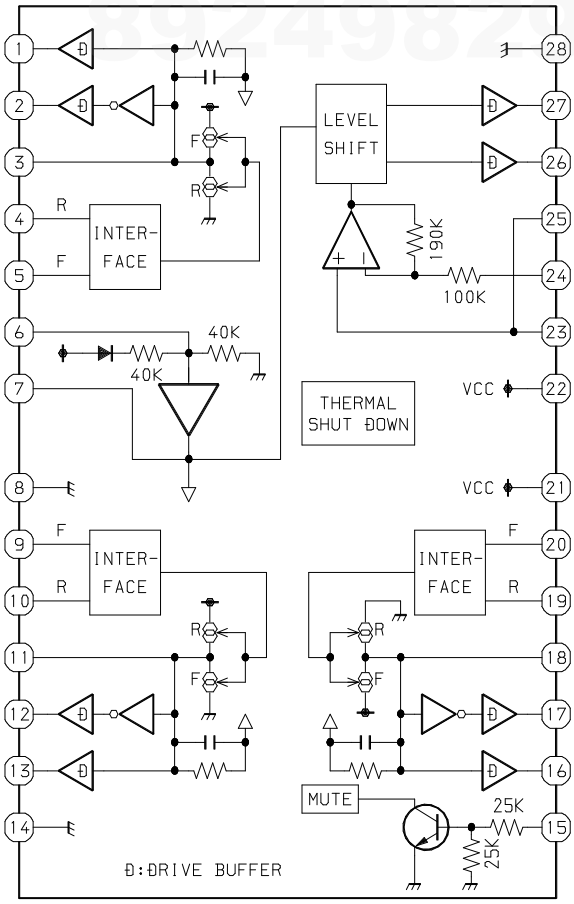
IC, TA8273H



IC, BA6392FP



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IC DESCRIPTION

IC, µPD178018AGC-596

Pin No.	Pin Name	I/O	Description
1	FM/AM S–M	I	Input RDS AF signal and FM/AM S-meter signal input.
2	LEVEL IND	I	Voltage input for level indicator.
3	SEN 1	I	Load sens detect input.
4	CD CONNECT	I	Connection check of CD changer.
5	CD DISP SEL	O	Signal output of communication timing with CD changer. H: TX, L: RX.
6	CD CLO	O	Synchronize clock signal output for transmission.
7	CD DI	I	Data signal input for reception.
8	CD DO	O	Data signal output for transmission.
9	CD CLI	I	Synchronize clock signal input for reception.
10	LCD STB/CE	O	LCD driver CE signal output.
11	CLK SEL	O	Clock selection for LCD driver.
12	LCD DI	I	Data signal input for LCD driver.
13	LCD DO	O	Data signal output for LCD driver.
14	LCD CLO	O	Synchronize clock signal output for LCD driver.
15	CD ACC CONT	O	ACC signal output for CD changer.
16	POWER MUTE	O	POWER MUTE signal output.
17	ST-BY MUTE	O	ST-BY MUTE signal output.
18	POWER CONT	O	POWER CONTROL signal output.
19	CONT 1	O	LCD contrast: Control 1. (Not used)
20	CONT 2	O	LCD contrast: Control 2. (Not used)
21	GND PORT	–	Ground for port.
22	VDD PORT	–	Power supply for port.
23	MUTE	O	Audio mute output.
24	BAND CONT	O	FM/AM power switch output. H: AM, L: FM.
25	RADIO CONT	O	Radio power switch output. L: Radio mode. (Not used)
26	RDS MODE	O	Hi output during RDS AF mode. (Not used)
27	IF REQ	O	Request output for IF count signal.
28	AM IF	I	AM IF count signal input.
29	FM IF	I	FM IF count signal input.
30	VDD PLL	–	Power supply for PLL.
31	FM OSC	I	Input from FM station.
32	AM OSC	I	Input from AM station.
33	GND PLL	–	Ground for PLL.
34	EO0	O	Error output from charge pump. (Not used)
35	EO1	O	Error output from charge pump.
36	GND	–	Ground.
37	LOC/DX	O	LOC/DX switch output during radio seek. H: LOC, L: DX.
38	SD/ST IND	I	Station detect signal input during FM/AM seek. H: Detect station / L: Seeking. Stereo signal input during FM reception. H: Mono, L: ST.
39	PHONE MUTE	I	External mute control. L: -20dB Mute.
40	CDS CS	O	CS signal output.
41	CDS RESET	O	RESET signal output.

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Pin No.	Pin Name	I/O	Description
42	CDS SLEEP	O	SLEEP signal output.
43	CDS STOP	I	STOP signal input.
44	CDS IN	I	DISC insertion detect input.
45	SEN2	I	Load sens detect input.
46	BBE-2	I	BBE input 1. (Not used)
47	BBE-1	I	BBE input 2. (Not used)
48	MF.CON	O	SLEEP signal control output.
49	MI–1	I	Diode matrix input for default setting.
50	MI–2	I	Diode matrix input for default setting.
51	MI–3	I	Diode matrix input for default setting.
52	MO–1	O	Diode matrix output for default setting.
53	MO–2	O	Diode matrix output for default setting.
54	MO–3	O	Diode matrix output for default setting.
55	MO–4	O	Diode matrix output for default setting.
56	PANCON1	O	Panel control motor reverse drive output.
57	PANCON2	O	Panel control motor forward drive output.
58	ACC IN	I	ON/OFF input for ACC (accessory power supply).
59	BEEP	O	BEEP output.
60	REMOTE	I	Remote control input.
61	E–VOL CE	O	CE output to electrical volume.
62	E–VOL DO	O	Data output to electrical volume.
63	E–VOL CLO	O	Clock output to electrical volume.
64	DRV CONT	O	Hi output during DRIVE mode.
65	RDS DI	I	RDS data input. (Connected to GND through a resistor)
66	DFP IN	I	Front panel detection.
67	FLAP IN	I	OPEN/CLOSE detection of FLAP DFP. DFP IN: Enable when High.
68	RDS CLI	I	RDS clock input. (Connected to GND through a resistor)
69	JACK IN	I	JACK detect input.
70	BATT IN	I	ON/OFF input for BATT.
71	RE-1	I	Rotary encoder input 1. (Connected to GND through a resistor)
72	RE-2	I	Rotary encoder input 2. (Connected to GND through a resistor)
73	S-REQ	–	S-REQ signal input for CDS.
74	REG CPU	–	CPU power-supply regulator.
75	GND	–	Ground.
76	X–OUT	–	System clock oscillator.
77	X–IN	–	System clock oscillator.
78	REG OSC	–	Oscillator circuit regulator.
79	VDD	–	System power supply.
80	RESET	I	System reset.

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IC, LC75374E

Pin No.	Pin Name	I/O	Description
1	RVR IN	I	4dB volume control input. Must be driven at a low impedance.
2	R COM	–	1dB volume control common pin. (Connected to GND through a capacitor)
3 ~ 5	RT1 ~ RT3	–	For the connection of capacitors that compensate for bass and treble in the tone control circuits. A high-frequency compensation capacitor must be connected between RT1 and RT2. A low-frequency compensation capacitor must be connected between RT2 and RT3.
6	RT OUT	O	Tone control output.
7	RS IN	I	Super bass input. Must be driven at a low impedance.
8	NC	–	Connected to GND.
9	NC	–	Not connected.
10	RS3	O	For the connection of RCH super bass compensation capacitors.
11	RS OUT		
12	FR IN	I	Fader input. Must be driven at a low impedance.
13	FR OUT	O	Fader output. The front and rear sides can be attenuated independently.
14	RR OUT		
15	VSS	–	GND.
16	CL	I	Serial data and clock input for control.
17	DI		
18	CE	–	Chip enable. Data is written in the internal latch when the chip enable signal goes "L" from "H", and each analog switch is activated. Data transfer is enabled at "H".
19	VREF	–	Generates a 1/2VDD power source. A capacitor must be connected between VREF and GND as a troubleshooting against power ripples.
20	RL OUT	O	Fader output. The front and rear sides can be attenuated independently.
21	FL OUT		
22	FL IN	I	Fader input. Must be driven at a low impedance.
23	LS OUT	O	For the connection of LCH super bass compensation capacitors.
24	LS3		
25	NC	–	Not connected.
26	NC	–	Connected to GND.
27	LS IN	I	Super bass input. Must be driven at a low impedance.
28	LT OUT	O	Tone control output.
29 ~ 31	LT3 ~ LT1		For the connection of capacitors that compensate for bass and treble in the tone control circuit. A high-frequency compensation capacitor must be connected between LT1 and LT2. A low-frequency compensation capacitor must be connected between LT2 and LT3.
32	L COM	–	1dB volume control common pin.
33	LVR IN	I	4dB volume control input. Must be driven at a low impedance.
34	LSELO	O	Input selector output pin.
35	AUX (L)	I	Signal input pins.
36	CD (L)		
37	TUN (L)		
38	TP (L)		
39	VDD	–	Power supply.

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Pin No.	Pin Name	I/O	Description
40	TP (R)	I	Signal input pins.
41	TUN (R)		
42	CD (R)		
43	AUX (R)		
44	RSELO	O	Input selector output pin.

IC, LC75817W-8720

Pin No.	Pin Name	I/O	Description
1 ~ 53	S1 ~ S53	O	LCD segment output.
54 ~ 59	S54 ~ S59	O	LCD segment output. (Not used)
60	S60 / COM10	O	LCD segment output / LCD common driver output. (Not used)
61	COM9	O	LCD common driver output. (Not used)
62 ~ 69	COM8 ~ COM1	O	LCD common driver output.
70 , 71	KS1, KS2	O	Key scan output. (Not used)
72 ~ 75	KS3 ~ KS6	O	Key scan output.
76 ~ 80	KI1 ~ KI5	I	Key scan input.
81	P-1	O	Illumination driver output.
82	P-2		
83, 84	P-3, P-4	O	Not used.
85	VDD	–	Power supply.
86	VLCD	–	LCD power supply.
87	VLCD0	–	LCD power supply.
88	VLCD1	I	3/4 bias voltage is applied to the LCD drive externally.
89	VLCD2	I	1/2 bias voltage is applied to the LCD drive externally.
90	VLCD3	I	1/4 bias voltage is applied to the LCD drive externally.
91	VLCD4	–	Connected to GND.
92	VSS	–	GND.
93	TEST	–	Test pin. (Connected to GND)
94	OSC-OUT	O	Resistor and capacitor are attached externally to form an oscillator circuit.
95	OSC-IN	I	
96	INT	–	Connected to VDD.
97	DO	O	Serial data interface pin; output data.
98	CE	O	Serial data interface pin; chip enable.
99	CL	O	Serial data interface pin; synchronization.
100	DI	I	Serial data interface pin; data transferred.

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IC, CXD2587Q

Pin No.	Pin Name	I/O	Description
1	SQSO	O	Sub-Q 80-bit and PCM peak level data output. CD TEXT data output.
2	SQCK	I	Clock input for reading SQSO.
3	$\overline{\text{XRST}}$	I	System reset. Reset at "L".
4	SYSM	I	Muting input. Muted at "H".
5	DATA	I	Serial data input from CPU.
6	XLAT	I	Latch input from CPU. Latches serial data at the trailing edge.
7	CLOK	I	Clock input for serial data transfer from CPU.
8	SENS	O	SENS output to CPU.
9	SCLK	I	Clock input for reading SENS serial data.
10	VDD	–	Power supply of digital circuits.
11	ATSK	I/O	Input/output for anti-shock. (Connected to GND)
12	SPOA	I	Microprocessor extended interface (input A). (Connected to GND)
13	SPOB	I	Microprocessor extended interface (input B). (Connected to GND)
14	XLON	O	Microprocessor extended interface (output). (Not used)
15	WFCK	O	WFCK output. (Not used)
16	XUGF	O	WUGF output. MNT1 or RFCK is output when switched by command. (Not used)
17	XPCK	O	XPCK output. MNT0 is output when switched by command. (Not used)
18	GFS	O	GFS output. MNT3 or XROF is output when switched by command.
19	C2PO	O	C2PO output.
20	SCOR	O	Outputs "H" when Sub-code sync S0 or S1 is detected.
21	COUT	I/O	Track number count signal input/output. (Not used)
22	MIRR	I/O	Mirror signal input/output. (Not used)
23	DFCT	I/O	Defect signal input/output. (Not used)
24	FOK	I/O	Focus OK signal input/output.
25	LOCK	I/O	Outputs "H" when GFS sampled by 460 Hz is "H"; "L" when GFS is "L" continuously for 8 samplings. Or, a signal is input when LKIN is "1".
26	MDP	O	Spindle motor servo control output.
27	SSTP	I	Disc innermost edge detection signal input. (Connected to GND)
28	SFDR	O	Sled drive output.
29	SRDR	O	Sled drive output.
30	TFDR	O	Tracking drive output.
31	TRDR	O	Tracking drive output.
32	FFDR	O	Focus drive output.
33	FRDR	O	Focus drive output.
34	VSS	–	Ground of digital circuits.
35	TEST	I	TEST pin. Normally grounded. (Connected to GND)
36	TES1	I	TEST pin. Normally grounded. (Connected to GND)
37	XTSL	I	Crystal select input. "L" when 16.9344MHz crystal is used; "H" when 33.8688MHz crystal is used. (Connected to GND)
38	VC	I	Neutral voltage input.
39	FE	I	Focus error signal input.

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Pin No.	Pin Name	I/O	Description
40	SE	I	Sled error signal input.
41	TE	I	Tracking error signal input.
42	CE	I	Neutral servo analog input.
43	RFDC	I	RF signal input.
44	ADIO	O	For test. Do not connect. (Not used)
45	AVSS0	–	Ground of analog circuits.
46	IGEN	I	Constant current input for OP-AMP.
47	AVDD0	–	Power supply of analog circuits.
48	ASYO	O	EFM full-swing output ("L": VSS; "H": VDD).
49	ASYI	I	Asymmetry comparator voltage input.
50	BIAS	I	Asymmetry circuit constant current input.
51	RFAC	I	EFM signal input.
52	AVSS3	–	Ground of analog circuits.
53	CLTV	I	VCO1 control voltage input for multiplication.
54	FILO	O	Filter output for master PLL (Slave: Digital PLL).
55	FILI	I	Filter input for master PLL.
56	PCO	O	Charge pump output for master PLL.
57	AVDD3	–	Power supply of analog circuits.
58	VSS	–	Ground of digital circuits.
59	VDD	–	Power supply of digital circuits.
60	DOUT	O	Digital output. (Not used)
61	LRCK	O	D/A interface LR clock output f=Fs. (Not used)
62	PCMD	O	D/A interface serial data output (2's COMP, MSB first). (Not used)
63	BCK	O	D/A interface bit clock output. (Not used)
64	EMPH	O	Outputs "H" when disc to be played is applied with emphasis; "L" when disc to be played is not applied with emphasis. (Not used)
65	XVDD	–	Power supply of master clock.
66	XTAI	I	Crystal oscillator input. External master clock is input to this pin.
67	XTAO	O	Crystal oscillator output.
68	XVSS	–	Ground of master clock.
69	AVDD1	–	Power supply of analog circuits.
70	AOUT1	O	Lch analog output.
71	AIN1	I	Lch OP-AMP input.
72	LOUT1	O	Lch line output.
73	AVSS1	–	Ground of analog circuits.
74	AVSS2	–	Ground of analog circuits.
75	LOUT2	O	Rch line output.
76	AIN2	I	Rch OP-AMP input.
77	AOUT2	O	Rch analog output.
78	AVDD2	–	Power supply of analog circuits.
79	RMUT	O	Rch "0" detection flag. (Not used)
80	LMUT	O	Lch "0" detection flag. (Not used)

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IC, CXA2581N

Pin No.	Pin Name	I/O	Description
1	LD	O	APC-AMP output.
2	PD	I	APC-AMP input.
3	EQ-IN	I	RFAC-system VCA/EQ block input.
4	AC-SUM	O	RFAC-system RF SUM output.
5	GND	–	Ground.
6	A	I	A-signal input.
7	B	I	B-signal input.
8	C	I	C-signal input.
9	D	I	D-signal input.
10	E	I	E-signal input.
11	F	I	F-signal input.
12	SW	I	MODE switching signal input.
13	DVCC	–	Power supply.
14	DVC	O	DVC output.
15	RFAC	O	RFAC signal output.
16	FE	O	Focus error signal output.
17	FEI	I	FE AMP virtual ground.
18	TE	O	Tracking error signal output.
19	TE-BAL	I	TE balance adjustment. (Connected to VC)
20	CE	O	Center error signal output.
21	CEI	I	CE AMP virtual ground.
22	VCC	–	Power supply.
23	RFG	I	RFAC-system VCA block low-frequency gain adjustment.
24	BST	I	EQ boost level adjustment. (Connected to VC)
25	VFC	I	EQ cutoff frequency adjustment.
26	RFC	I	EQ cutoff frequency adjustment.
27	VC	O	VC voltage output.
28	RFDCO	O	RFDC signal output.
29	RFDCI	I	RFDC AMP virtual ground.
30	DC-OFST	I	RFDC signal output offset adjustment.

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IC, µPD789026GB-A54-8ES

Pin No.	Pin Name	I/O	Description
1	LO-REV	O	Loading motor reverse drive output. Active “H/L”.
2	LO-FWD	O	Loading motor forward drive output. Active “H/L”.
3	$\overline{\text{LIMT-SW}}$	I	Inner edge limit switch. Active “L”.
4	RF-SW	O	CD/CD-RW switching output. Active “H”.
5	SV-CONT	O	Outputs “H” when power is turned on. Active “H”.
6	$\overline{\text{SRQ}}$	O	Mechanism microprocessor communication request. Active “L”.
7	$\overline{\text{SLEEP}}$	I	SLEEP request from system microprocessor. Active “L”.
8	$\overline{\text{CHUCK-SW}}$	I	Chucking complete switch. Active “L”.
9	$\overline{\text{LOAD-SW}}$	I	Disc loading switch. Active “L”.
10	8/12-SW	I	8/12-cm check switch.
11	CD-ON	O	CD mechanism power control output. Active “H”.
12	NC	–	Connected to GND.
13	IC	–	Connected to GND.
14	X2	–	For generating main system clock.
15	X1	–	For generating main system clock.
16	VSS	–	Ground.
17	VDD	–	Power supply.
18	RESET	I	System reset input.
19	APC	O	Laser on/off switching output. Active “H/L”.
20	LOCK	I/O	LOCK input/output.
21	FOK	I/O	Focus OK signal input/output.
22	C2PO	I	C2PO input.
23	$\overline{\text{CS}}$	I	CS signal input. Active “L”.
24	SCOR	I	Sub-code syncronize input.
25	SENS	I	SENS input.
26	SYS-DI	I	System microprocessor serial data input.
27	SYS-DO	O	System microprocessor serial data output.
28	SYS-CLK	I	System microprocessor serial syncronize clock input.
29	GFS	I	GFS input.
30	SCLK	O	Outputs clock for reading SENS serial data.
31	CLK-DSP	O	Outputs clock for transferring DSP serial data.
32	LAT-DSP	O	DSP serial data latch output.
33	DATA-DSP	O	DSP serial data output.
34	CD-MUTE	O	Muting output. Active “H”.
35	$\overline{\text{CD-RST}}$	O	CD reset output. Active “L”.
36	SQ-IN	I	Sub-Q/PCM peak/level data input.
37	NC	–	Not connected.
38	VDD	–	Power supply.
39	VSS	–	Ground.
40	SQCK	O	Outputs clock for reading SQSO.
41 ~ 44	NC	–	Not connected.

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VOLTAGE CHART

IC301, LC75374E

PIN NO.	VOLT (V)
1 ~ 7	4.32
8	0
9	0.07
10 ~ 14	4.32
15	0
16 ~ 18	–
19 ~ 24	4.32
25	0.035
26	0
27 ~ 38	4.32
39	8.36
40 ~ 44	4.32

IC401, BA14741F-E2

PIN NO.	VOLT (V)
1 ~ 3	7.0
4	14.0
5 ~ 10	7.0
11	0
12 ~ 14	7.0

IC501, TA8273H

PIN NO.	VOLT (V)
1, 2	0
3	7.60
4	3.65
5	7.60
6	14.35
7	7.60
8	0
9	7.60
10	8.90
11, 12	1.40
13	0
14, 15	1.42
16	1.35
17	7.60
18	0
19	7.60
20	14.35
21	7.60
22	4.15
23	7.60
24	0
25	0.02

IC601, LC75817W-8720

PIN NO.	VOLT (V)
1 ~ 56	3.30
57 ~ 61	–
62 ~ 69	3.30
70, 71	–
72 ~ 75	4.85
76 ~ 80	–
81	4.85 (ILL1)
82	4.85 (ILL2)
83, 84	–
85	5.40
86	8.30
87	6.60
88	5.00
89	3.35
90	1.70
91 ~ 93	0
94 ~ 95	2.70
96 ~ 97	5.40
98	0.45
99	4.65
100	0.25

IC602, SBX1971-52

PIN NO.	VOLT (V)
1	0
2, 3	5.2

IC701, PST994D

PIN NO.	VOLT (V)
1	8.70
2	0
3	4.35

IC751, BA6417F

PIN NO.	VOLT (V)
1	0.24
2, 3	8.20
4, 5	–
6	3.64
7	0.25
8	0

IC901, UPD178018AGC-596

PIN NO.	VOLT (V)
1, 2	–
3	0.07
4	–
5	4.90
6 ~ 9	–
10	0.24
11	0.58
12	4.32
13	0.12
14	4.70
15	1.90
16	4.10
17	3.55
18	4.85
19, 20	–
21	0
22, 23	4.90
24	(–) {4.85}
25	4.90
26, 27	–
28, 29	0.03
30	4.90
31	(2.20) {0.65}
32	(0.35) {2.50}
33	0
34, 35	1.05
36	0
37	–
38	4.75
39	3.20
40	4.90

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PIN NO.	VOLT (V)
41	4.90
42	4.85
43	–
44	4.30
45 ~ 57	–
58	5.00
59	–
60	5.22
61 ~ 64	–
65	–
66	5.1
67	5.1
68	–
69	(0.70) {5.0}
70	4.30
71, 72	–
73	5.30
74	3.55
75	0
76	1.60
77	1.55
78	3.55
79, 80	4.90

Note:
PIN 24 ( ) = DX, { } = LO
PIN 31,32 ( ) = FM, { } = AM
PIN 69 AUX JACK IN
( ) = OFF, { } = ON

IC903, TC4053BF

PIN NO.	VOLT (V)
1	4.25
2	0.12
3	4.85
4	4.70
5	4.55
6 ~ 8	0
9 ~ 11	0.55
12	4.90
13	0.05
14	4.30
15	0.12
16	4.90

REF NO.	ANODE	CATHODE
LED 601	3.40	1.70
LED 602	1.70	0
LED 603	3.30	1.70
LED 604	1.70	0
LED 611	1.70	0
LED 612	3.35	1.70
LED 613	1.70	0
LED 614	3.50	1.8
LED 615	1.80	0.06
LED 616	3.50	1.8
LED 617	1.80	0.06
LED 618	9.0	5.50
LED 619	9.0	5.15
LED 620	9.0	5.15
LED 621	9.0	5.15
LED 622	9.0	5.15
LED 625	3.40	1.70
LED 626	5.0	3.35
LED 651	2.00	0

TU101, FAE347-A22

PIN NO.	FM	AM
1 ~ 3	–	–
4	7.67	0.28
5	0	0
6	1.29 ~ 7.45	1.29 ~ 7.45
7, 8	0	0
9	1.60	8.75
10	0	0
11	0.12	0.23
12	8.05	0.03
13	8.26	8.15
14	2.2 ~ 3.68	2.2 ~ 3.68
15	0	0
16, 17	3.33	3.33
18	0	0
19, 20	–	–
21	1.58	0.01
22	0.04	4.73
23	0.88	1.05
24	4.0	1.16
25	8.26	8.15
26	1.14	0.05

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REF NO.	DX	LO
Q 101		
B	–	–
C	7.14	0.30
E	0	0
Q 102		
B	9.0	8.30
C	0.50	8.90
E	9.00	9.00
Q 103		
B	8.75	0.04
C	9.00	9.00
E	8.0	–
Q 104		
B	4.8	–
C	8.75	0.04
E	0	0
Q 105		
B	1.05	1.00
C	0.65	2.2
E	0.60	0.01
Q 106		
B	0.60	0.01
C	0.65	2.2
E	0	0

REF NO.	OFF	ON
Q 341		
B	–	4.10
C	–	–
E	0	0
Q 342		
B	–	4.10
C	–	–
E	0	0
Q 401		
B	0	0
C	0.04	0.04
E	0.03	0.03
Q 402		
B	4.85	4.85
C	0.035	0.035
E	0	0

REF NO.	OFF	ON
Q 403		
B	–	3.65
C	–	–
E	0	0
Q 404		
B	–	3.65
C	–	–
E	0	0
Q 405		
B	–	3.65
C	–	–
E	0	0
Q 406		
B	–	3.65
C	–	–
E	0	0

REF No.	VOLT (V)
Q 451	
B	1.50
C	4.70
E	0.90

REF NO.	OFF	ON
Q 461		
B	14.4	0.02
C	0.15	14.30
E	14.4	14.4
Q 462		
B	–	1.90
C	14.4	0.02
E	0	0

REF NO.	ILL1	ILL2
Q 611		
B	–	0.75
C	–	0.06
E	0	0
Q 612		
B	–	4.80
C	9.0	0.8
E	–	0.75

REF NO.	OFF	ON
Q 613		
B	4.85	–
C	0.80	9.0
E	0.75	–
Q 614		
B	0.75	–
C	0.09	–
E	0	0
Q 615		
B	0.75	–
C	0.09	–
E	0	0

REF NO.	VOLT(V)
Q 701	
B	13.60
C	14.30
E	14.35
Q 702	
B	4.0
C	0.06
E	0
Q 704	
B	9.70
C	14.35
E	9.0
Q 706	
B	0.05
C	14.32
E	14.35
Q 707	
B	1.28
C	0.05
E	0
Q 708	
B	6.25
C	13.30
E	5.60
Q 709	
B	8.80
C	14.35
E	8.20

REF NO.	VOLT(V)
Q 710	
B	9.40
C	14.35
E	8.80
Q 711	
B	8.75
C	9.40
E	9.45
Q 712	
B	2.25
C	–
E	0
Q 713	
B	5.60
C	8.20
E	5.00
Q 715	
B	3.00
C	–
E	0
Q 716	
B	–
C	5.60
E	5.60

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CD TEST MODE

1. Disassembly
   1. Remove COVER TOP / COVER BOTTOM.
   2. Remove the screws (as shown by arrows in Fig-1) of CD mechanism. See Fig-1.

Fig-1

2. Service Position
   Check the function with the mechanism is set to a stable position. (Use a tool such as PLATE). See Fig-2.

Fig-2

3. Test Mode
   1. Starting the CD Test Mode
      1) Short-circuit the TEST land (TP904 - as shown by arrow in Fig-3) of the MAIN PWB, using solder. See Fig-3.

      2) Connect the ACC (red) and BACKUP (yellow) wire of the power supply/speakers connector to the positive (+) terminal of the Power Supply device and the Ground (black) wire to the negative (–) terminal.

      3) Adjust the voltage applied to the Power Supply device to 14.5V and then turn on the power.
      The test mode starts, and the LCD are all lit. See Fig-4.

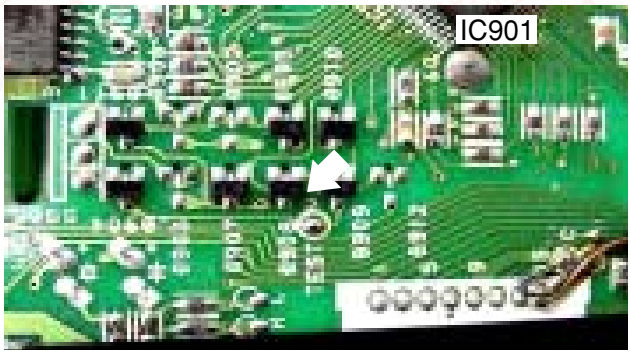

Fig-3

Fig-4

   2. Exiting the CD Test Mode
      1) Turn off the power of the Power Supply device.
      2) Remove all the wires from the power supply/speakers connector.
      3) Remove the solder of the TEST land (TP904) of the MAIN PWB.

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3. CD Test Mode Functions

Mode	Button for Activation	Display	Operation	Contents
Start Mode		All lights are lit.		Test mode starts.
Load/Unload	EJECT	All lights are lit.	Checking	All servo off Laser on VCC on
Search Mode	RNDM 6		Continuous focus search. PU lens repeats full swings. (Note 1)	APC circuit check Laser current measurement Focus error waveform check
Play Mode	REP 1 5	TOC READING Track No. Play time display Level display	Normal playback. If TOC READ is unavailable, the search mode function is on.	Focus servo Tracking servo CLV servo Sled servo
Traverse Mode	INT 3	Track No. and play time are displayed	Pause status	Tracking servo OFF
STOP	REP 4	All lights are lit.	Standby status	All servo OFF Laser ON/OFF
Sled Mode	TUNE ▼ ▲ ⏮ ⏭	All lights are lit.	⏮ Pickup moves to the outermost track. ⏭ Pickup moves to the innermost track.	Sled servo Mechanism function check

- During search mode check, do not insert a disc.
- Press the REPEAT button to exit each mode.

Note 1: When the focus search mode is repeated more than 10 minutes, the driver IC may generate heat, activating the protection circuit to stop the CD function. If this happens, turn off the power, wait for 10 minutes to release heat before restarting.

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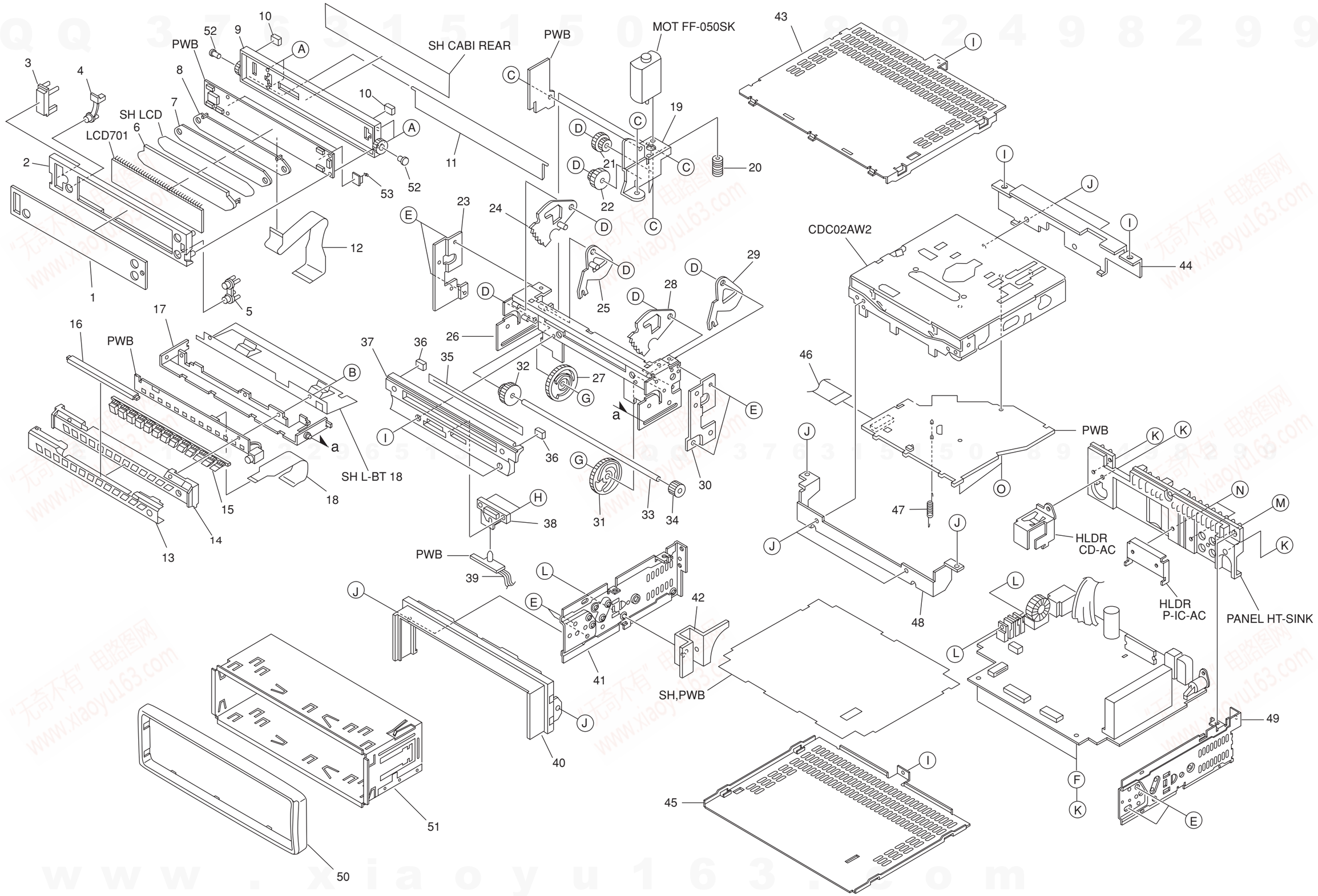
MECHANICAL EXPLODED VIEW 1 / 1



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MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-KC7-003-010		WINDOW,LCD
2	8B-KC7-001-010		CABI,FRONT HIGH
3	8B-KC7-004-010		BTN,+/-
4	8B-KC7-005-010		BTN,MUTE
5	8B-KC7-006-010		BTN,TWIN
6	8B-KC7-204-010		CASE,LCD
7	8B-KC7-202-010		LENS,LCD
8	8B-KC7-201-010		PLATE,LENS BOTTOM
9	8B-KC7-002-010		CABI,REAR
10	8B-KC7-222-010		PLATE,MAGNET
11	8B-KC7-025-010		PANEL,BOARD
12	8B-KC7-611-010		PWB,FLEX DISP
13	8B-KC7-007-010		CABI,FRONT AL
14	8B-KC7-008-010		CABI,BTN PANEL B
15	8B-KC7-010-010		BTN,P-SET 7
16	8B-KC7-015-010		LENS,BER
17	8B-KC7-207-010		PLATE,PANEL A'SSY
18	8B-KC7-612-010		PWB,FLEX KEY
19	8A-ZL2-211-010		HLDR ASSY MOT
20	8A-ZL2-241-010		GEAR,WORM
21	8A-ZL2-242-010		WORM-WHL
22	8A-ZL2-243-010		GEAR,L-1
23	8B-KC7-209-010		HLDR,SP-L
24	8A-ZL2-231-010		LEVER ASSY GEAR L
25	8A-ZL2-221-010		LEVER ASSY L
26	8A-ZL2-201-010		FRAME ASSY MAIN
27	8A-ZL2-246-010		GEAR CAM L
28	8A-ZL2-236-010		LEVER ASSY GEAR R
29	8A-ZL2-226-010		LEVER ASSY R
30	8B-KC7-210-010		HLDR,SP-R
31	8A-ZL2-247-010		GEAR CAM R
32	8A-ZL2-244-010		GEAR,L-2
33	8A-ZL2-251-010		SHAFT COUNTER
34	8A-ZL2-245-010		GEAR R
35	8B-KC7-208-010		COVER, DUST
36	85-ZL3-203-010		MAGNET,ACU
37	8B-KC7-021-010		CABI,BASE MAIN
38	8B-KC7-022-010		LENS,CD
39	8B-KC1-603-010		F-CABLE,2P (PWB LED)
40	8B-KC7-023-010		CABI,BASE AROUND
41	8B-KC1-213-110		CHAS,SIDE L-BC
42	8B-KC7-212-010		HLDR,TR2-B
43	8Z-KC1-256-010		COVER, BOTTOM RDS
44	8B-KC7-211-010		HLDR,MECHA
45	8B-KC7-251-010		COVER, BT-B
46	88-KC4-641-010		FF-CABLE, 20P 1.0 90MM
47	8A-KC7-255-010		SPR-C,WIRE
48	8B-KC7-217-010		HLDR,MECHA FR
49	8B-KC1-214-110		CHAS,SIDE R-BC
50	8B-KC7-024-010		CABI,TRIM
51	8Z-KC1-231-110		HLDR,HALF -C
52	8B-KC7-215-010		SHAFT,FLAP L/R
53	8B-KC7-218-010		TERMINAL,PWB
A	8Z-KC1-253-010		S-SCREW,PT 2*8 BH+ BLK
B	87-B10-335-010		VTT+1.7-4 W/O
C	87-261-032-210		V+2-3
D	87-067-800-010		W-P,1.5-3.5-0.25SLT
E	87-251-070-410		U+2.6-3
F	87-432-903-010		WASHER,WTE 2.6
G	87-067-272-010		W-P,2.1-4-0.25SLIT
H	8Z-KC1-254-010		S-SCREW,PT 2*5 BH+ BLK
I	87-B10-216-010		U+2.6-4.0 ZINC BLK (BH M2.6)
J	8Z-KC1-251-010		S-SCREW,TH2.6-4.0-0.8
K	87-251-073-410		SCREW,U+2.6-6
L	87-B10-336-010		VTT+2.6-6 W/O
M	87-B10-259-010		UT2+3.0-10.0 W/O SLOT (BH TAP)
N	87-251-096-410		U+3-10
O	88-ZG5-317-010		S-SCREW,8ZG5S+2-4 W/O

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue	GL	Light Green	HT	Transparent Gray

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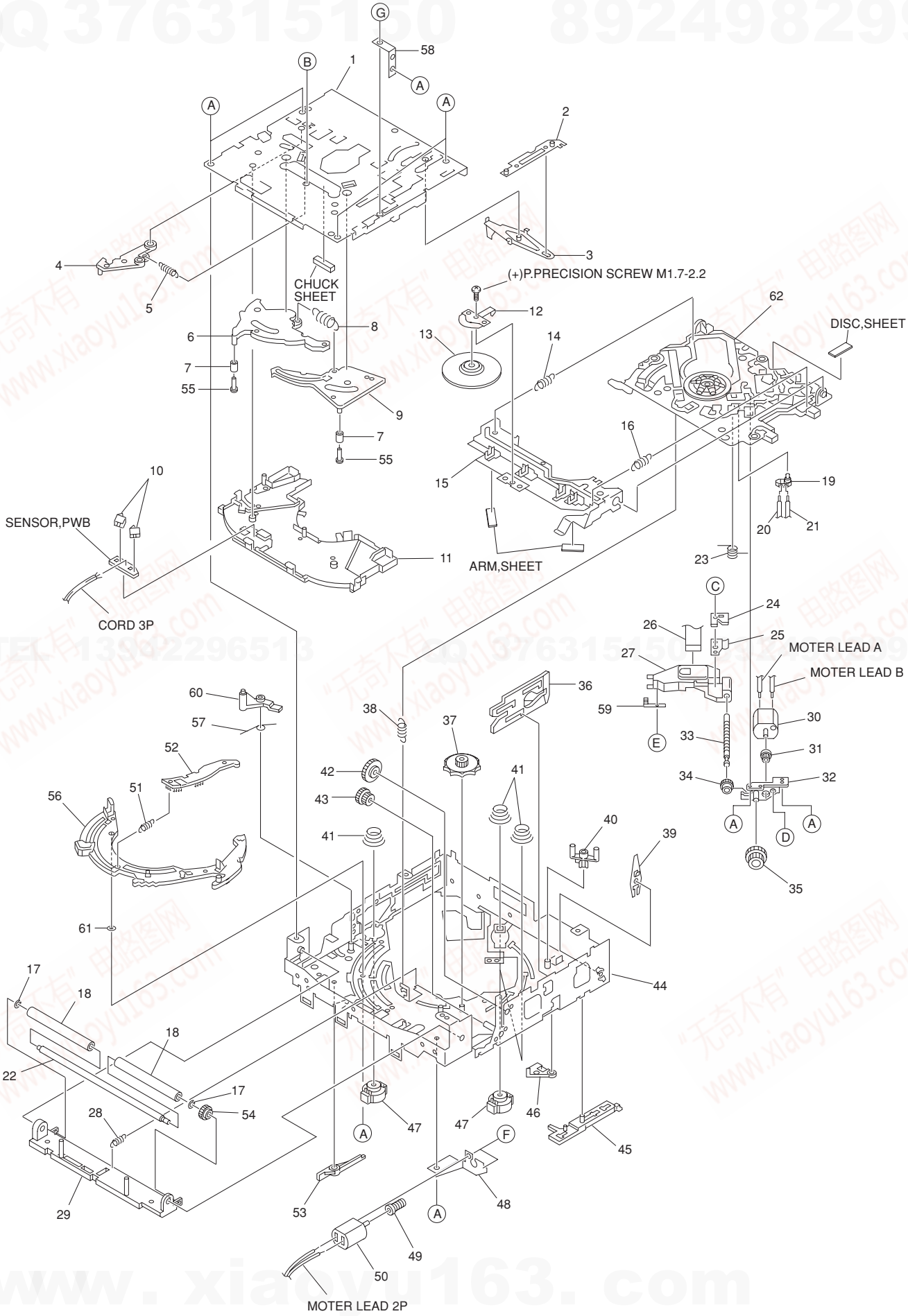
CD MECHANISM EXPLODED VIEW 1 / 1



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CD MECHANISM PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	S1-100-510-130		COVER TOP
2	S1-100-510-090		LEVER RELEASE
3	S1-100-510-180		ARM START SET
4	S1-100-520-220		LEVER,SENSOR
5	S1-100-540-070		SP LEVER SENSOR
6	S1-100-520-050		DISC ARM L
7	S1-100-530-260		ROLLER ARM DISC
8	S1-100-540-040		SP ARM DISC
9	S1-100-520-060		DISC ARM R
10	S1-100-570-760		SW,LOAD MPU10853MLB2
11	S1-100-520-230		GUIDE TOP
12	S1-100-510-070		PLATE CLAMPER
13	S1-100-520-040		CLAMPER
14	S1-100-740-020		SP ARM CHUCK
15	S1-100-510-030		ARM CHUCK
16	S1-100-740-040		SP ARM CHUCK(R)
17	S2-181-600-50D		PSW,1.6-5-0.25 (CUT)
18	S1-100-750-020		LOLLER LOADING
19	S1-100-570-070		SW,INNER
20	S1-100-570-140		LEAD SW A
21	S1-100-570-150		LEAD SW B
22	S1-100-530-060		SHAFT ROLLER
23	S1-100-740-010		SP FEED
24	S1-100-510-110		GUIDE,SPG
25	S1-100-720-050		GUIDE 720
26	S1-100-770-340		PICK FPC(720)
27	S1-100-770-360		PICK 720
28	S1-100-540-100		SP LEVER UP
29	S1-100-520-240		LEVER,UP
30	S1-100-270-030		MOTOR,MAIN FF-030PK
31	S1-100-520-110		GEAR MOTOR FEED
32	S1-100-520-190		CASE,MOTOR
33	S1-100-730-010		SCREW,FEED
34	S1-100-520-090		GEAR,FEED A
35	S1-100-520-300		GEAR FEED B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
36	S1-100-520-170		LEVER,R
37	S1-100-520-140		GEAR H CAM
38	S1-100-540-080		SP SUB DAMPER
39	S1-100-510-080		ARM,R
40	S1-100-520-180		LEVER,LOCK
41	S1-100-540-030		DAMPER SP
42	S1-100-520-130		GEAR LOAD
43	S1-100-520-120		GEAR L H
44	SX-100-710-130		CHASSIS ASSY(AW2)
45	S1-100-520-160		LEVER,KICK
46	S1-100-520-270		LEVER,SUB KICK
47	S1-100-760-010		DAMPER ASSY
48	S1-100-510-060		BRACKET,L M
49	S1-100-520-200		MOTOR WORM
50	S1-100-770-080		MOTOR LOAD
51	S1-100-540-090		SP GEAR SUB
52	S1-100-520-030		GEAR SUB CAM
53	S1-100-520-250		LEVER,SW
54	S1-100-520-210		GEAR,ROLLER
55	S1-100-530-250		PIN ARM DISC
56	S1-100-520-020		GEAR CAM
57	S1-100-740-030		SP LOCK P.B
58	S1-100-710-080		PLATE L
59	S1-100-710-090		GUIDE PICK 720
60	S1-100-720-030		LOCK,P.B
61	S1-100-730-030		COLLAR
62	SZ-100-710-010		PICK BASE GROSS ASSY
A	S1-100-550-030		SCREW,XP
B	S2-139-140-40P		B-TYPE M1.4-4
C	S2-134-170-80P		S-TYPE WITH GUIDE M1.7-8
D	S2-103-200-40P		(+)P.PRECISION SCREW M2.0-4.0
E	S3-132-140-30P		S-TYPE WITH GUIDE M1.4-3
F	S2-101-200-25P		(+)P.PRECISION SCREW M2.0-2.5
G	S2-132-200-40P		S-TYPE WITH GUIDE M2-4

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ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-KCF-902-010		IB,INST,YU,YL (3L,P)-I
1	8B-KC7-901-010		IB,YU(3L) 917M
2	8Z-KT1-616-010		CONN ASSY,16P B52
3	87-B10-141-010		NUT,5 TYPE-2
4	87-B10-143-010		UT1+5-15 W/O SLOT
5	87-B10-144-010		W,5.2-10-0.5
6	87-B10-145-010		W-SPR,5.3-8.5-1.5
7	87-B10-216-010		U+2.6-4.0 ZINC BLK (BH M2.6)
8	8Z-KC1-231-110		HLDR,HALF -C
9	8Z-KC1-232-010		KEY,REMOVE -C
10	8Z-KC1-235-010		HLDR,REAR MTG
11	8Z-KC1-244-010		S-SCREW,5*6 TH+ TAPPING ST
12	8Z-KC1-250-010		S-SCREW,HEXAGON

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